

A PURPOSE FOR CONTEXT-SENSITIVITY

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I dedicate this to Anne Mildenhall.

Abstract

This thesis has two parts. In Part I there is an argument for the conclusion that a linguistic phenomenon known as (radical) “context-sensitivity” is to be expected given the limitations of those who use language to reason about empirical states of affairs. The phenomenon arises as a consequence of a process that must be performed to use language to reason validly. In Part II it is explained why the phenomenon, understood in light of the discussion of Part I, does not threaten the possibility of communication.

Acknowledgements

Charles Bukowski opens *Post Office* with the words, “This book is presented as a work of fiction and is dedicated to nobody.” I used to like the thought of being able to say something just like that. As was inevitably going to be the case, I cannot say it here with any truth and because I now have a fairly good idea of just what would have to be so for it to be true, I don’t even like the thought of it anymore.

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More generally, the environment in the department has been ideal. It has provided innumerable opportunities to experiment with new ideas with willing and critical others and to learn from the different approaches to philosophy taken by the

faculty there. The friendly atmosphere of the place is what makes it capable of fostering its diversity, not to mention the concomitant potential for intellectual cross-pollination; all this when it is just so easy for doors to be closed without any more explanation than a short-tempered and incredulous stare. It is a puzzle to me that it took more than 2,000 signatures and a forced embarrassing to get others in the university to value the place as highly as it ought.

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Introduction

This thesis is divided into two parts. The first describes a purpose of the context-sensitivity of linguistic expressions. The strategy taken is similar to the genealogical studies of Edward Craig and Bernard Williams.¹ Although their studies introduce a historical narrative to achieve their effect, something from which I will refrain, they both also attempt to improve our understanding of their chosen phenomena by showing how things we might take for granted would malfunction if the pertinent phenomenon were absent. They thus show that such phenomena are not idle where otherwise that may have been the suspicion. It is in this sense that the investigation in the first part of this thesis is about the purpose of context-sensitivity and may be called ‘genealogical.’

It is common to suppose that a main activity in which words are put to work is described by the “simple model of communication.”² The model appears innocuous.³ There is a speaker and a hearer. The speaker produces a sentence. The hearer and the speaker associate the same worldly conditions with the sentence. If the speaker is being honest and competent then the hearer can learn how things are with

¹ See (Craig 1990) on knowledge and (Williams 2004) on telling the truth.

² For example: (Chierchia and McConnell-Ginet 1990, pp.11-14), (Cruse 2004, pp.5-6), (Larson and Segal 1995, p.6), (Lyons 1977, pp.32-43), (Portner 2005, pp.20-22), and (Predelli 2010, p.329)

³ I do not mean to launch an attack on a “code model” of communication as do (Sperber and Wilson 1986). The simple model is more general than the code model they attack and arguably encompasses the inferential model they prefer. Whether or not there is a one-to-one relation between sentences and truth-conditions is *not* what is important about the simple model. Rather, our focus is the contrast the model elicits between on the one hand, unsystematic contextual variation in what is to be understood by spoken words, and on the other hand, the form, meaning, and syntax of words. The latter clearly do work we would be worse off without but the former does not appear to do so.

something *not* then perceptible by him by means of something that *is* then perceptible by him. Finally, sentences are constituted out of finite elements combined in accordance with rules.

If we grant that this model has application to our use of sentences then we can easily see the utility in three features of them. Firstly, the sentences are useless in this model if they are not perceptible. So their having a phonological or graphological form serves a purpose. If they were unobservable thoughts or “abstracta” then they would not be suited for the activity taking place in the model. Secondly, the sentences have something about them which enables interlocutors to recognise what is the case given their (honest, competent) production. We could call this “meaning.” Without that, although an expression may be perceptible, given that a sentence does not mean anything in itself, the activity represented in the model could not take place by means of the production and observation of them. Thirdly, because the sentences are constituted out of a finite number of simpler elements combined in accordance with rules, it is possible to learn how to produce and understand an infinite number of sentences.⁴ This enables the activity of the model to allow a greater deal of diversity in what can be communicated of than would otherwise be possible.

Unlike the form of a sentence, its meaning, and the syntactic rules to which its elements conform, that there is indefinitely many different things that could be said to be so by means of a sentence seems to contribute nothing positive to the activity described by the model.⁵ In fact, quite the opposite: it appears to undermine the elegant work contributed by the other features we know sentences to possess. It introduces a lacuna in the model where we should have found an explanation of how a hearer can form a particular expectation of how the world is given the presentation of a given sentence.

⁴ (Davidson 1965 [1984])

⁵ Some (e.g. (Stanley 2007, p.17)) have proposed that the utility in context-sensitivity is economy: sentences would have to be longer than is practical if only features of linguistic expressions determined what would, for instance, make true a given sentence. However, this view is warranted only for what I will call below “further factor views.” If one denies that there is any regularity in what is relevant to what would make true a given sentence, then reliance upon features of a speaking beyond the expressions employed is just as useless as would be a simpler view. I think Stanley recognises this and that is why he intends to supply a possible purpose for context-sensitivity understood as a further factor view *only*.

It is because the model, and the lacuna generated within it by a radical contextualism, loom large in the credibility of the claim that there are no systematic relationships between sentences and truth-conditions (predicates and satisfiers, referring NPs and referents) that I am approaching the topic ‘genealogically.’ To show empirically that the phenomenon is pervasive only serves to heighten anxiety if it is not shown why context-sensitivity does not form a spanner in the works without which the works would work perfectly well. By offering a genealogical account of context-sensitivity I hope to contribute in some way to fixing context-sensitivity a place of equal stature alongside the more obviously purposive features of linguistic expressions.

Adopting this “genealogical” strategy might be summarily dismissed. It has become common to study context-sensitivity with a methodology characteristic of formal semantics. Models of sentences are proposed. These models generate predictions about what properties a sentence has under different conditions that are also part of the model. These predictions are then tested against the intuition of native speakers of the sentences. There is nothing wrong, I think, with this methodology. It uncovers features of natural language insofar as the models found have application. But in denying the relevance to discussion (of context-sensitivity) of considerations other than those that take the form of a formal semantic analysis of a sentence, one is doing more than agreeing with the view that this methodology bears fruit. One is saying that it is the only respectable way to do any harvesting whatsoever. To this I have two things to say before we begin. Firstly, what is at issue is how to interpret the results of formal semantic study. So further engagement in that formal semantic study, which I am supposing, involves no study of that formal semantic study, will leave unanswered questions raised about the kinds of results formal semantic study generates. Secondly, if reasons could be found to think that the results of formal semantic study ought to be interpreted in such a way that a radical context-sensitivity is *not* in play, then you do not (automatically) override reasons *for* a radical contextualism. If you find such a combination of reasons, you generate a *puzzle*. So even if one could uncover phenomena of language which imply the falsity of the view to be defended, that would not show that or how the argument I am going to offer is unsound. It *would* generate a question but not necessarily an answer.

The second part of this thesis addresses what will still be a lingering concern. The purpose I find for context-sensitivity is (in the first instance) for expressions employed in reasoning. It does not in itself show why *communication*, understood along the lines of the simple model, is not undermined by a contextualism of the order I am attempting to defend. So in the second part I identify an argument for the incompatibility of such a position and the possibility of communication which underlies the thinking of those with the doubts. I then attack a premise employed in that argument. The premise is attacked primarily by appeal to an understanding of context-sensitivity made possible by the purpose we will have found for it in the first part; but appeal will also be made to observations about the micro-sociology of conversation.

PART I

CHAPTER I

A hypothesis

1 Introduction

The main concern of this thesis is to show that there is good reason to accept a brand of context-sensitivity which has been much discussed by Charles Travis: occasion-sensitivity (OS).⁶ I have found that Travis' own specifications of the thesis are equivocal when viewed in an environment filled with proposals similar in appearance. For this reason, this first chapter takes up the task of stating the view in such a way that it is clearly distinguishable from those similar looking alternatives. The discussion will make plain what is at issue and what is not. There have been mistakes made about this and I want to put us in a position to recognise these mistakes as such. We will not be at all concerned in the present chapter with arguments for the view.

Our first step will be to introduce a series of distinctions. To illustrate their fog-clearing potential, and to help us relate OS to other positions, I will examine the purported difference between semantic minimalism and radical contextualism

⁶ Because it is laid out slowly in stages for both referring expressions and predicative expressions, I think the clearest statement of the view is (Travis 1981). However, at that time the phenomenon was still interpreted as a case of radical "ambiguity", as is obvious in Travis' continued commitment to a generative theory of illocutions, as described in (Travis 1975, Chapter 1). An "illocution" is how a linguistic expression is to be understood (the "to be" indicates how it *ought* to be understood, and not just how it could be understood). A generative theory of illocutions is modelled on a generative theory of syntax. The theory would consist of principles from which all and only the things there are to be understood can be derived. Travis (1986) gives up on this project. Travis (2006, Chapter 1) includes a good statement of the view: it is more general than (Travis 1981) but requires more work from the reader. Commonly cited in discussion of Travis' work are (Travis 1985) and (Travis 1997 [2008]). But as we will see, those more commonly cited statements are equivocal and easily confused with what I will later call a "further factor view."

under their light. They allow us to see that there is no real difference between these positions. I then state a hypothesis and I will define OS as the rejection of this hypothesis. This hypothesis is perhaps most prominently held by the early Donald Davidson and by David Lewis.⁷ The hypothesis can at this stage be roughly stated as: speakers of a language share a disposition to classify items as falling within the extension of given expressions and others as not. That is something you learn when you learn a language.⁸ It is hard to deny, and there is little reason to want to deny, that, in some sense, we acquire *some* dispositions when we come to speak a language. But exactly *what* dispositions these are is our topic. Having introduced the hypothesis I explain how Travis' own statements of OS are equivocal *when viewed in the context of surrounding literature* but when examined with sufficient care, are assuredly statements of OS as it is defined in this chapter. The final sections explain how the current account of OS is consistent with Travis' explicit distinction between his own view and the later Davidson's view, how OS is not incompatible with compositional semantics, and how OS should be distinguished from views from which it is typically not adequately distinguished.

2 Three distinctions

2.1 Linguistic expressions: types and instances

There are sounds and marks we can make. Some of these have a form which makes them part of something recognisable as English or Mandarin etc. Different sounds and marks can share the same form. In this way the same expression can be produced repeatedly: red, red, red...There can be many instances of the same expression type.⁹ There are properties that instances of expression types share

⁷ *Early* Davidson because eventually he comes to say, "I conclude that there is no such thing as a language, not if a language is anything like what many philosophers and linguists have supposed. There is therefore no such thing to be learned, mastered, or born with. We must give up the idea of a clearly defined shared structure which language-users acquire and then apply to cases. And we should try again to say how convention in any important sense is involved in language; or, as I think, we should give up the attempt to illuminate how we communicate by appeal to conventions." (Davidson 1986, p.446). There is room for different readings of the later Davidson. But on some readings he is stating a view which I think can be classified as a kind of OS. Statements which presuppose the hypothesis can however be found in the earlier Davidson. As for Lewis, I mean his (1969), (1970), and (1973 [1983]).

⁸ For predecessors see also (Bloomfield 1933 [1979]) and (Quine 1960).

⁹ The full version of occasion-sensitivity ought to allow for instancing of expressions other than their production. For example, write out a note (one production), but then use the note for different purposes (many instances). The note as used for those different purposes could

quite robustly (perhaps even by definition). For instance: proper spelling, proper pronunciation, and perhaps syntactic category.¹⁰ But there are other properties of instances of expression types which are less robust. For instance, many instances of the English word “red” have colours. But the instances of the word have different colours. There is not a regularity to be found in the colours of the words produced; at least, not simply by virtue of the fact that they are instances of the word.

2.2 Kind of regularity: long versus transient

There is a sliding scale of longevities for which a type of expression when instanced will have a given property. It ranges from the very long (all the instances of an expression in the lifetime of a speaker) to the very short (a single instance). Some longevities are more interesting than others. I want to focus on one in particular. Suppose I say that Frank speaks a language. That is a claim made using a verb with habitual aspect: *speaks*. The simple present tense in English is generally used to make a claim with a verb with habitual aspect. Comrie identifies the following as a feature of habitual aspect:

...they describe a situation which is characteristic of an extended period of time, so extended in fact that the situation referred to is viewed not as an incidental property of the moment but, precisely as a characteristic feature of a whole period. (Comrie 1976, pp.27-28)

Other examples include: Ralph kills ponies; blackcaps emigrate south; a shark lives in the ocean; seafood tastes salty; the bishop stands on that square; Max walks past the roundabout; Mylene attends parole meetings. Notice the feature that Comrie remarks upon: the “extended period of time.” When it is over it is then the case that something *used to* \varnothing , but does not any longer. Similarly, prior to a point in time at which it is true to say, for instance, Ralph kills ponies, it can be said that he will do so, or will start doing so, or will start to do so. There are *edges* to the period of time for which it is true to say that, for instance, Ralph kills ponies. Notice further that there can be variations in this extended period of time. It’s not as though when habitual aspect is used there is one period of time one is committed

vary in the properties with which we will be concerned below even though there is only one production of it. The discussion in this thesis will be limited to instances *qua* productions of expressions. But I am supposing that the discussion and its conclusions can be reapplied to these other ways of being instanced.

¹⁰ The list is not meant as exhaustive.

to something's being so for e.g. 22 minutes. If one attends parole meetings, this routine will end at a certain point, viz. when one is no longer on parole. Then one can truly say one used to attend parole meetings, but not anymore. If one walks past the roundabout on one's way to work, that might change if one changes the route one takes to work or changes jobs. Speaking a language is something that has a typical length too. If someone uses the language on a daily basis (i.e. does not fall out of practice), then it is true to say that she speaks, e.g. French, until she suffers a physically incapacitating accident, dementia, or death. Such a period of time typically exceeds the length of time for which one might be on parole or the length of time for which one has a given job which requires walking a certain route, and so on. Things could have been otherwise. But this is how they are with being such that one speaks a language.¹¹

So now we have a certain longevity for which we can ask, do all the instances of an expression type have a property for that length of time? Let us call a property and expression that recur together with this longevity a *long* regularity or a property of the expression which has a long longevity. An expression and a property which recur together for a far shorter length of time (e.g. the length of a conversation) we will call a *transient* regularity or a property which has a transient longevity.

You may be wondering why I approached this distinction through grammatical aspect. The reason is that statements are made about linguistic expressions and the properties they possess. We say that something *satisfies* a predicate or that a linguistic expression *refers* to some object. The italicised verbs have habitual aspect. But the longevity of the habit is most often not discussed. It is left in the background. In that way statements of this sort do not make explicit what it is that I want to discuss. So I have introduced this first distinction of kinds of regularity through the element of language that easily hides the different positions one could adopt on this issue.

¹¹ One can use the word "speaks" to speak of other things too. For instance, perhaps there is a play to be put on. Each night the actors switch roles. The roles are identified only by the languages spoken. Then someone might say, "Jones speaks Latin, you speak Portuguese" meaning to speak of the time for which the play is being performed tonight only. But our discussion is about one ability in particular. This is an ability we know takes a long time to come to have and which stays with one for a long time if one keeps it practiced.

2.3 Kind of regularity: substantial versus logico-syntactic

There are properties of linguistic expressions which we can describe as their extensions: for a referring NP, a referent; for a predicate, its satisfiers; and for a sentence, its truth-value. These properties are interlinked and can be used to describe a truth-condition of a sentence. There are two different things one might mean in speaking of a truth-condition of a sentence (and related notions: referents and satisfiers). To explain this difference I will need to introduce us to formal semantics. For it is a difference in how one goes about the empirical inquiry of formal semantics that makes for the difference between the two things one might mean by “truth-condition.”¹² We will also need a toy formal semantics for the purposes of forthcoming discussion. I will sketch one now.

2.3.1 Formal semantics

Formal semantics is *formal* because it concerns the form of linguistic expressions. Formal semantics is *semantics* because it concerns patterns in some of the properties that expressions, individuated by form, can have; properties which might be called “semantic.” The aim of the empirical discipline of formal semantics is to identify patterns in the properties of linguistic expressions as employed by particular populations of speakers. A formal semantics is a system of rules that describes properties of expressions and allows one to predict how these properties change with respect to one another.

We do not need to attend to the complexities that are the daily work of professional semanticists. What we do need is a formal semantics that can be applied to some English expressions and which allows us to illustrate claims made by myself and in the literatures that we will be concerned to address.

A formal semantics can be divided into two parts: the syntactic part and the semantic part. The syntax describes what expressions are in question. Importantly this includes what *complex* expressions are in question: expressions formed by concatenation with other expressions. The semantic part is defined for given expressions relative to their syntactic categories. It describes what the properties of expressions can be, given the properties of other expressions.

¹² I am not claiming that these are the only two things one can speak of with the expression “truth-condition.”

2.3.1.1 Syntax

We will employ a simple phrase structure grammar. To apply this to our expressions we need to divide the expressions into (syntactic) categories. This will be done by writing out rules. Some of these rules describe how the expressions can be combined given their category. The complex expressions will themselves be members of syntactic categories. We can distinguish between basic and non-basic syntactic categories. The first set of rules (a)-(i) describe how complex expressions can be formed out of simpler expressions and therefore define the non-basic categories:

- a. $S \rightarrow NP \text{ Pred}$
- b. $S \rightarrow S \text{ conj } S$
- c. $S \rightarrow \text{neg } S$
- d. $S \rightarrow \text{If } S \text{ then } S$
- e. $VP \rightarrow V_t N$
- f. $VP \rightarrow V_i$
- g. $\text{Pred} \rightarrow \text{INFL } VP$
- h. $NP \rightarrow N$
- i. $NP \rightarrow \text{Det nom}$

There will be an inflection on verbs which in the semantics will be associated with temporal and modal information:

- j. $\text{INFL} \rightarrow (\text{neg}) \begin{array}{|c|} \hline \text{PAST} \\ \hline \text{PRES} \\ \hline \text{FUT} \\ \hline \text{M} \\ \hline \end{array} \quad \text{3rd SNG}$

There are two rules which allow movement of syntactic elements. Firstly, there is movement of NPs. When NPs are moved they leave traces (variables), e_i :

k. $[_s X NP Y] \rightarrow [_s NP_i [_s X e_i Y]]$ (Quantifier raising)

Secondly, there is movement of the inflection element of a verb:

l. $[_s NP INFL X] \rightarrow [_s INFL [_s NP X]]$ (Inflection raising)

Both rules allow us to use modal predicate logic in providing a formal semantic analysis of (some) natural language sentences.

For expressions that will figure within the recursive semantic rules below and will not be treated by a valuation function we have special syntactic rules. There are:

- m. conj \rightarrow and, or
- n. Det \rightarrow the, a, every
- o. neg \rightarrow it is not the case that
- p. M \rightarrow might, can, must

Finally, we need to assign our linguistic expressions to the basic syntactic categories. So some linguistic expressions will be assigned to the category NP, some to VP, and so on. Such a thing looks like this:

N \rightarrow Syverten, Durden, Cotter.

V_i \rightarrow died, smiled, ate, slept.

V_t \rightarrow murdered, betrayed.

2.3.1.2 Semantics

Properties are assigned to the expressions, basic and complex, using a further set of rules. As with the syntactic rules, these divide into those that concern complex and those that concern basic expressions. Some of these rules are defined not in terms of the expressions themselves, but in terms of the syntactic categories to which expressions are allocated. Others (found in what is called “the model”) are defined for particular expressions. Together these rules define a function $I^{M,w,i,c,g}$ known as the interpretation function.

2.3.1.2.1 The interpretation function

The arguments to the function are: an expression, a model M , a world w , a time i , a context c , and an assignment function g . The expression is self-explanatory. The

assignment function, g , is a function that assigns elements of the domain of the model M to variables rather than non-logical constants. The model M defines sets from which w , i , and c are drawn. The model also assigns intensions or extensions to the non-logical basic constants.

A model is itself an ordered tuple: $\langle D, W, I, C, F \rangle$. D is a domain of items the expressions will be usable to speak of. W is a set of worlds. I is a set of times whose members are ordered in a linear sequence. But care should be taken in how these are to be understood so please try not to read them too literally. Just think of them as sets with elements within them. F assigns intensions (or extensions) to the expressions that are constants. An intension is a function from parameters to elements of the domain D . The parameters will be worlds and times. F assigns different kinds of intension to expressions of different syntactic categories. If β is a proper name, then $F(\beta)$ is a function from elements of W and elements of I to elements of D . If β is a predicate, then $F(\beta)$ is a function from elements of W and elements of I to sets of elements of D . If β is a transitive verb then $F(\beta)$ is a function from elements of W and elements of I to sets of ordered pairs of elements of D .

For some expressions their intension will include a further parameter whose domain is not W and I , viz. a parameter with a domain whose elements are drawn from C (the remaining element of the tuple that is the model: $\langle D, W, I, C, F \rangle$). The parameter is the context parameter, c , of an intension. The context parameter of an intension is redundant except for a certain class of expressions. Which expressions are they? If I walk over to Regents Park and utter the expression, “No one is here”, then the expression “here” can be modelled as having as its element from the domain, Regent’s Park. But if one were to walk over to Hyde Park and produce the expression, then it would better be modelled as having its element from the domain as, Hyde Park. There is this variation, even though the two occurrences of “here” could occur with respect to the same world and the same time (two different people utter the sentence, “No one is here,” in the two different places simultaneously). This feature of “here” is thought to contrast with for instance, “Hyde Park”, which does not vary in this way with the circumstances in which it is produced. So rather than having an element of a domain assigned to the expression, “here”, *tout court* F assigns to that expression an element of the domain relative to c . A context is something relative to which the item from the domain that is assigned to “here” is defined. However, words other than “here” exhibit the same behaviour e.g. “this”,

“that”, “I”, “she”, “you”, and more. But each expression depends upon the circumstances of its production in *different* ways (if they were not then one could not say truly, “That is not here.”). So the way each expression has an element of the domain assigned to it will need to be different. A context is an n-tuple. The tuple is as long as are the number of different kinds of expression which operate in this manner. We can name each element in the tuple: e.g. location, speaker, addressee etc. We can then speak of the location of c, or the speaker of c. The valuation function for these expressions will then operate like so:

$$F(\text{here})(c) = \text{the location of } (c)$$

There is no relativisation to worlds and times because these expressions are rigid designators. These expressions are usually called indexicals (e.g. “I”, “you”, “he”, “she”) and demonstratives (e.g. “that”, “those”).

There is a question of how the value of this parameter (just as there is for the other two: world and time) is to be determined. On this issue the formal semantics stays silent.

The logical constants are not assigned elements of D and what they are assigned is not assigned by a model. They are expressions whose intensions do not vary in their values relative to different values of w, i, and c, so those parameters need not feature in their definition. They can be defined as follows:

$$F(\text{and}) = \begin{pmatrix} \langle 1,1 \rangle \rightarrow 1 \\ \langle 1,0 \rangle \rightarrow 0 \\ \langle 0,1 \rangle \rightarrow 0 \\ \langle 0,0 \rangle \rightarrow 0 \end{pmatrix}$$

$$F(\text{or}) = \begin{pmatrix} \langle 1,1 \rangle \rightarrow 1 \\ \langle 1,0 \rangle \rightarrow 1 \\ \langle 0,1 \rangle \rightarrow 1 \\ \langle 0,0 \rangle \rightarrow 0 \end{pmatrix}$$

$$F(\text{If...then...}) = \begin{pmatrix} \langle 1,1 \rangle \rightarrow 1 \\ \langle 1,0 \rangle \rightarrow 0 \\ \langle 0,1 \rangle \rightarrow 1 \\ \langle 0,0 \rangle \rightarrow 1 \end{pmatrix}$$

$$F(\text{not}) = \begin{pmatrix} 1 \rightarrow 0 \\ 0 \rightarrow 1 \end{pmatrix}$$

2.3.1.2.2 Recursive semantic rules

The recursive semantic rules can then be defined as follows:

- a. If β is a trace then $I(\beta)^{M,w,i,c,g} = g(\beta)$. Otherwise $I(\beta)^{M,w,i,c,g} = F(\beta)(w,i)$ unless β is an indexical or demonstrative in which case, $I(\beta)^{M,w,i,c,g} = F(\beta)(c)$.
- b. If A and B are any categories, $I([_A B])^{M,w,i,c,g} = I(B)^{M,w,i,c,g}$
- c. $I([_s NP Pred])^{M,w,i,c,g} = 1$ iff $I(NP)^{M,w,i,c,g} \in I(Pred)^{M,w,i,c,g}$ and 0 otherwise.
- d. $I([_s S_1 conj S_2])^{M,w,i,c,g} = I(conj)^{M,w,i,c,g} (\langle I(S_1)^{M,w,i,c,g}, I(S_2)^{M,w,i,c,g} \rangle)$
- e. $I([_s \text{If } S_1 \text{ then } S_2])^{M,w,i,c,g} = I(\text{If...then...})^{M,w,i,c,g} (\langle I(S_1)^{M,w,i,c,g}, I(S_2)^{M,w,i,c,g} \rangle)$
- f. $I([_s neg S])^{M,w,i,c,g} = I(neg)^{M,w,i,c,g} (I(S)^{M,w,i,c,g})$
- g. $I([_{VP V_t NP}])^{M,w,i,c,g} = \{x: \langle x, I(NP)^{M,w,i,c,g} \rangle \in I(V_t)^{M,w,i,c,g}\}$

There are then rules for the semantics of expressions that include variables and quantifiers:

- h. $I([\text{every } \beta]_i S)^{M,w,i,c,g} = 1$ iff for all $u \in D$, if $u \in I(\beta)^{M,w,i,c,g}$ then $I(S)^{M,w,i,c,g[u/ei]} = 1$
- i. $I([\text{a } \beta]_i S)^{M,w,i,c,g} = 1$ iff for some $u \in D$, $u \in I(\beta)^{M,w,i,c,g}$ and $I(S)^{M,w,i,c,g[u/ei]} = 1$

$$j. \quad I([\text{the } \beta]_i S)^{M,w,i,c,g} = 1 \text{ iff for some } u \in D, I(\beta)^{M,w,i,c,g} = u \text{ and } I(S)^{M,w,i,c,g[u/ei]} = 1$$

There are rules which would employ the additional parameters, w and i . But our interest in these parameters lies in how they are used to model context-sensitivity. So we do not need to introduce additional rules for modal expressions. But we are interested in tense. So we will need some semantic rules that use the tense information in the verb:

$$k. \quad I([\text{INFL PRES}] S)^{M,w,i,c,g} = I(S)^{M,w,i,c,g}$$

$$l. \quad I([\text{INFL PAST}] S)^{M,w,i,c,g} = 1 \text{ iff where } i' \in I \text{ and there is some } i' < i \text{ such that } I(S)^{M,w,i',c,g} = 1$$

$$m. \quad I([\text{INFL FUT}] S)^{M,w,i,c,g} = 1 \text{ iff where } i' \in I \text{ and there is some } i' > i \text{ such that } I(S)^{M,w,i',c,g} = 1$$

Notice that in these rules the value of i is determined by the circumstances of speaking. It is not invariant across all productions of an expression governed by this rule (*mutatis mutandis* the value of w).

2.3.1.2.3 Models

Provided we have some expressions which we have assigned to basic syntactic categories, we can then provide a model, in the sense defined a moment ago, for those expressions. A model, recall, is an ordered tuple consisting of: D (a domain of objects), W (a set of worlds), I (a set of times), C (a set of contexts), and F (a valuation function). The valuation function assigns intensions to expressions.

Let us illustrate with a model (M_1) for two words: “sleeps” and “Ralph.” Suppose that “sleeps” is assigned to the basic syntactic category of V_i . Expressions of that syntactic category are assigned sets of elements of the domain D . Suppose D consists of the set $\{a, b, c\}$. Ignore C . We can represent the intension assigned to “sleeps” in M_1 like so:

$$F(\text{sleeps})(w_n, i_n) =$$

	i_1	i_2	i_3
w_1	$\{a, b\}$	$\{a, b\}$	\emptyset
w_2	$\{a\}$	$\{a\}$	\emptyset
w_3	$\{b\}$	$\{b\}$	\emptyset

So, for instance, $F(\text{sleeps})(\langle w_2, i_3 \rangle) = \emptyset$ but $F(\text{sleeps})(\langle w_2, i_1 \rangle) = a$. Now let us take a second expression, “Ralph.” Let us assign this to the basic syntactic category N, proper names. Proper names are assigned single elements of the domain D and what is more, they are assigned the same element for all w and all i. So, let us say that in M_1 $F(\text{Ralph})(\langle w_n, i_n \rangle) = a$ for all w and all i.

We can then use the recursive syntactic rules to form a sentence. By syntactic rule (f) an expression that is an intransitive verb is a verb phrase. By syntactic rule (g) a VP with an inflection is a predicate (the verb phrase “sleeps” having present tense). By syntactic rule (h) a name is a noun phrase and by syntactic rule (a) a noun phrase concatenated with a predicate is a sentence. By syntactic rule (l), we raise the INFL to get another sentence. Hence $[S [INFL PRES] [S [NP Ralph] [Pred sleeps]]]$ is a syntactic analysis of “Ralph sleeps.”

We can then use the semantic rules to provide an interpretation of this expression relative to different parameter values in M_1 . By semantic rule (k) $I([S [INFL PRES] [S [NP Ralph] [Pred sleeps]]])^{M_1, w, i, c, g} = I([S [NP Ralph] [Pred sleeps]])^{M_1, w, i, c, g}$ By semantic rule (c), $I([S [NP Ralph] [Pred sleeps]])^{M_1, w, i, c, g} = 1$ iff $I([NP Ralph])^{M_1, w, i, c, g} \in I([Pred sleeps])^{M_1, w, i, c, g}$. So now let us select some values for our parameters $w=w_1$ and $i=i_3$. By semantic rule (b) $I([NP Ralph])^{M_1, w_1, i_3, c, g} = I(\text{Ralph})^{M_1, w_1, i_3, c, g}$ and $I([Pred sleeps])^{M_1, w_1, i_3, c, g} = I(\text{sleeps})^{M_1, w_1, i_3, c, g}$. And by semantic rule (a), $I(\text{Ralph})^{M_1, w_1, i_3, c, g} = F(\text{Ralph})(\langle w_1, i_3 \rangle) = a$ and $I(\text{sleeps})^{M_1, w_1, i_3, c, g} = F(\text{sleeps})(\langle w_1, i_3 \rangle) = \emptyset$. So, $I([NP Ralph])^{M_1, w_1, i_3, c, g} \notin I([Pred sleeps])^{M_1, w_1, i_3, c, g}$. Hence, $I([S [INFL PRES] [S [NP Ralph] [Pred sleeps]]])^{M_1, w_1, i_3, c, g} = 0$.

2.3.1.3 Logic

With the syntax and semantics thus stated we can define the logical notions truth and entailment. I mention, because it is relevant for these definitions, that

syntactic rules (k) and (l) allow one and the same sentence to be assigned different syntactic structures: we say they have different logical forms (LFs). With that, we can define truth and entailment as follows:

Truth: A sentence S is true in a model M , a world w , a time i , an LF β , and a context c , iff for every assignment g , $I(\beta)^{M,w,i,c,g} = 1$. It is false if for every g , $I(\beta)^{M,w,i,c,g} = 0$.

Entailment: A sentence S relative to an LF α entails a sentence S' relative to an LF β for every model $M = \langle D, W, I, C, F \rangle$, if S is true in M relative to α , w , i , and c , then S' is true in M relative to β , w , i , and c .

2.3.2 Stipulated and empirically born models

A model for some expressions assigns those expressions extensions or intensions. The elements of the model together form a structure. For each tuple of elements from W , I and C we will have a collection of elements of D which fall into a structure of sets and subsets, as described by F . For instance, earlier we had such a thing for “Ralph” and for “sleeps.” For “Ralph” we had:

$F(\text{Ralph}) =$

	i_1	i_2	i_3
w_1	{a}	{a}	{a}
w_2	{a}	{a}	{a}
w_3	{a}	{a}	{a}

And for “sleeps” we had:

$F(\text{sleeps}) =$

	i_1	i_2	i_3
w_1	{a, b}	{a,b}	\emptyset
w_2	{a}	{a}	\emptyset
w_3	{b}	{b}	\emptyset

So the elements of D that are the extension of “Ralph” form a subset of the elements of D that are the extension of “sleeps” in $\langle w_1, i_1 \rangle$, $\langle w_2, i_1 \rangle$, $\langle w_1, i_2 \rangle$, and $\langle w_2, i_2 \rangle$, but not in $\langle w_3, i_1 \rangle$, $\langle w_3, i_2 \rangle$, $\langle w_3, i_3 \rangle$, $\langle w_1, i_3 \rangle$, or $\langle w_2, i_3 \rangle$. On its own, all that a model is is a series of structures of elements and sets, relativised to tuples, themselves drawn from the sets W , I , and C .

When we describe a model we can *stipulate* various properties of the expressions to which the formal semantics is applied. Not only do we stipulate properties of proper names, predicates, and other basic expressions, viz. their extension or intension. We also stipulate the truth-values and truth-conditions of complex *sentential* expressions, albeit indirectly via the recursive rules of the formal semantics. Our stipulations are constrained only by the syntactic category of an expression.

If, when pursuing the study of the formal semantics of expressions, it is not a problem that the models we produce are stipulated just so long as the stipulations conform to the constraints on the semantic values possible for an expression given its syntactic category, then what is being studied is not the particular semantic values of the expressions, but rather, the kind of semantic value, or equivalently, the semantic category of the expression. Consider, for instance, a linguistic expression, like, “Ralph.” We can distinguish between *kinds of* semantic value and *particular* semantic values which that expression might have or be assigned. The semantic value of a (i.e. any) name is, we might say, an element of the domain D , or, alternatively, we might say it is an intension that maps the same element of the domain D for any pair $\langle w, i \rangle$. “Ralph” is a name, so any conclusions we come to about names would apply to it. In making such a claim we make no commitment about the particular semantic value of a particular name, e.g. that “Eric Dolphy” is the name that refers to a man who died tragically in Berlin. That is the import of the fact that the model here was stipulated. If it is OK to stipulate models, then one is not aiming to study the particular intensions or extensions of expressions. One is only attempting to study their behaviour with respect to certain properties given their syntactic category.

But things could be otherwise. An alternative would be that the models produced ought not to be stipulated but instead arise as the product of an empirical procedure wherein one observes the uses speakers make of expressions and one

attempts to document what items in the world are counted as the extension of the expressions. One then attempts to construct a description of the expression-extension relations one observes to obtain in the speakers' use of those expressions. A model acts as a description of the *particular* semantic value that an expression really has as employed by its speakers. Here then the model will not be stipulated but instead will be born of empirical inquiry.

2.3.3 Logico-syntactic versus substantial extensions

We can now distinguish between two things one might mean in speaking of the truth-conditions of a sentence.¹³ When one states a truth-condition of a sentence, one employs something like one of the recursive semantic rules of a formal semantics. Consider again the semantic rule (c):

$$c) I([_s \text{ NP Pred}])^{M,w,i,c,g} = 1 \text{ iff } I(\text{NP})^{M,w,i,c,g} \in I(\text{Pred})^{M,w,i,c,g} \text{ and } 0 \text{ otherwise.}$$

This rule states a schema for a truth-condition for a sentence of a given syntactic structure, viz. [NP][Pred]. One might fill in this schema with a particular sentence, ignoring tense, for instance:

$$c') I([_s \text{ [NP Ralph] [Pred sleeps]})^{M,w,i,c,g} = 1 \text{ iff } I([\text{NP Ralph}])^{M,w,i,c,g} \in I([\text{Pred sleeps}])^{M,w,i,c,g} \text{ and } 0 \text{ otherwise.}$$

This might be written out much less formally as:

$$c'') \text{ "Ralph sleeps" is true iff Ralph sleeps}$$

Now, (c') and (c'') might be called statements of the truth-condition(s) of the sentence "Ralph sleeps." But there are two things one might mean by this. Firstly, one might mean to say that (c') states the truth-condition of the sentence even though insofar as one has supplied a model, say M_1 , for the formal semantics within which (c') is stated (and one may well not have done so), one has *stipulated* it. Indeed, that is what we did. There is no pretence in M_1 of an attempt to document how the words "Ralph" and "sleeps" are actually used by speakers of English, other than so far as their syntactic category is concerned. Secondly, however, one might actually have produced a model born of empirical investigation. Just as one may have constructed the semantic rules (a)-(m) by careful examination of how speakers use linguistic expressions of different syntactic

¹³ See (Barba 2007) for a similar distinction made for similar reasons to my own.

categories and documented what properties they assign to these expressions, so one might have gone further than that and set out to examine exactly what speakers of a language will count as the referents and satisfiers of various expressions and documented this in a model (perhaps even in a special technical language with which one described the elements of D, W, I, and C). In what sense one will be stating the truth-condition of “Ralph sleeps” differs depending upon whether there is such a model and how that model was generated. If the statement of the truth-condition(s) of “Ralph sleeps” that we find in (c') and (c'') is such that there is either no model for the formal semantics or a model is only stipulated, then, we will say that the truth-condition is *logico-syntactic*. What I intend to capture with this locution is that all one would really be describing with (c') are constraints on possible distributions of extensions and intensions across the linguistic expressions making up the sentence given their syntactic categories. On the other hand, if the formal semantics within which (c') is stated has a model which is born of (accurate) empirical inquiry, then we will say that the truth-condition it provides is *substantial*. For then one is claiming to specify exactly what speakers of the language will count as making the sentence true (and indeed, what they will count as referents of “Ralph” and satisfiers of “sleeps”). One could make predictions with such a theory about such matters. Analogous distinctions between the substantial and the logico-syntactic can be drawn for the extensions of NPs and predicates.

Typically, the kind of thesis put forward by those who pursue formal semantics makes no commitment of the second, substantial, sort.¹⁴ Suppose someone proposes a semantic analysis of the sentences such that that a given sentence entails the other is a consequence of the analysis. If it turns out that speakers can (rightly) classify one as true and the other false, then the hypothesis is incorrect. For example, the syntactic and semantic rules for the quantifiers are motivated by the fact that the English sentence, “Every man missed some woman” can be read in two different ways such that in one case it entails the sentence, “there is a woman whom every man missed” and in the other case it does not entail this sentence.¹⁵ Another example is the rules proposed in a formal semantics for modal expressions

¹⁴ E.g. Thomason (1974, p.48) is entirely explicit about this and even warns of the problems that arise from failing to recognise the distinction I have drawn between substantial and logico-syntactic truth-conditions. Though for all that Thomason still supposes the hypothesis I will define below.

¹⁵ (Chierchia and McConnell-Ginet 1990, 114-123)

like “must” and “might.” These are motivated in part by the fact that “It might be the case that it is raining” does not entail “It is raining” nor does it entail “It is not raining.” That is, modal semantics is motivated in part by the fact the truth-values of sentences that include modal operators in natural language like “It might be the case that” are not functions of the truth-value of the sentence the operator is appended to. These might be quite robust features of speakers’ use of these expressions and the properties they ascribe to and withhold from them. These are logico-syntactic regularities which can be documented in a theory of the form of a formal semantics.

But there are equivocal claims made about what exactly the formal semantic project is. For instance, Dowty et al. write:

We merely wish to emphasize that truth-conditional semantics, in contrast to the other approaches mentioned, is based squarely on the assumption that the proper business of semantics is to specify how language connects with the world – in other words, to explicate the inherent “aboutness” of language.

Let us inject a little concreteness into this rather abstract discussion by taking a particular example. Consider the utterance: “The Washington Monument is west of the Capitol Building.” What would a truth-conditional account of the meaning of this sentence be like? We have said that we will consider ourselves successful in producing such a meaning once we have specified what the world would have to be like in order for the sentence to be true. What condition of the world, what state-of-affairs would this be? Clearly, on the basis of our knowledge of English, and in particular of our knowledge of what English sentences mean, we can say that this sentence would be true just in case a certain physical object (entity) named by the words “the Washington Monument” and another entity named by the words “the Capitol Building” stand in a certain spatial and temporal relation named by the words “is west of.”...in truth-conditional semantics we answer a question of the form “What is the meaning of sentence S?” by providing some sort of description of how things would have to be arranged in some relevant corner of the world in order for S to be true. (Dowty, Wall and Peters 1989, p.5)

Notice two things. Firstly, Dowty et al. claim that the aim of formal semantics is to describe the expression-extension relations that naturally occurring expressions stand in to elements of the world: “the proper business of semantics is to specify how language connects with the world – in other words, to explicate the inherent “aboutness” of language.” Admittedly, this is a kind of battle cry to distinguish truth-conditional semantics from other approaches which attempt to relate expressions to supposed mental states of speakers. Nonetheless, what ends up being said is that the business of formal semantics is to study expression-extension relations, to *specify* them. However, secondly, notice what this specification ends up being. It takes the form: “The Washington Monument is west of the Capitol Building” is true if and only if the extension of “The Washington Monument” and the extension of “the Capitol Building” stand in the relation that is the extension of “is west of” to which we might as well add, *whatever those extensions happen to be*. So in *practice* the endeavour is to describe relations between possible distributions of extensions of these expressions, given their syntactic categories, and not to provide any account of what those extensions actually are for these expressions as employed by English speakers.

2.4 Similar distinctions

There are distinctions drawn by several philosophers which it might seem I could have used instead of the above. However, the statements I can find of them are not what I intend. I want to take a moment to explain why I have not employed these existent distinctions.

2.4.1 Descriptive semantics and foundational semantics

One distinction is drawn by Stanley and Szabo.¹⁶ It is between foundational and descriptive semantics.¹⁷ Descriptive semantics offers descriptions of what the semantic values are of linguistic expressions. Foundational semantics offers accounts of why the linguistic expressions have the semantic values they do have. For instance, we can distinguish between two theories about the semantic values that names have: an extension or an intension. Which is correct, if either, is a descriptive semantic question. We can then ask why it is that a name has whatever semantic value it has. One view which attempts to address that issue is Kripke’s causal-historical theory of names. This is a foundational semantic issue.

¹⁶ (Stanley and Szabo 2000 [2007], pp.70-76)

¹⁷ Stanley and Szabo take their distinction from Stalnaker (1997, pp.535-537).

But our distinctions are about no more than *what* semantic values expressions have. What is interesting about them (potentially) is that they distinguish between different senses in which we might say that expressions *have* semantic values: for how long do they need to have them to count as having them, and, how is what they have (e.g. an intension) to be understood? Stanley and Szabo leave those questions unasked and unanswered.

2.4.2 Semantics and metasemantics

Kaplan draws a distinction between what he calls semantics and metasemantics.¹⁸ This appears to be the same as Stanley and Szabo's distinction: semantics equals descriptive semantics and metasemantics equals foundational semantics. However, Kaplan goes on to say the following:

To argue that character belongs to metasemantics, one would have to regard indexicals as systematically ambiguous and as having no meaning at all outside a particular context of use. This is a view that seems reasonable for *generic names*, the kind of name that all us Davids have in common. (Kaplan 1989, p.574)

In this passage Kaplan implies that if something is a feature of semantics there must be a long regularity in the relation between that something and a given word. So because *qua* generic name there is nothing constant to all the Davids, there is nothing for semantics to describe, but nonetheless, something for metasemantics to describe. This suggests that Kaplan associates semantics with the documenting of long regularities between expressions and their substantial semantic values. This is different from the earlier gloss: it identifies semantics with the documenting of long regularities relating kinds of expression and substantial semantic values and metasemantics with regularities that are not long. But the original gloss he offered on his distinction concerned a distinction between *what* and *why*.

Either way, the semantics/metasemantics distinction is not desirable for our purposes. Either it fails to address the questions we want to raise just as Stanley and Szabo's does, or worse, it defines those pursuits in such a way that a position is adopted on what regularities there are where we want to leave that issue open for discussion.

¹⁸ (Kaplan 1989, pp.573-576)

2.4.3 Languages and language

Lewis draws a distinction between possible languages and languages used by particular populations of speakers.¹⁹ The possible languages are none other than expressions for which there is a formal semantics, including a non-stipulated model. For a possible language to be one used by a community just is for their use of its expressions to be a long regularity in substantial truth-conditions for sentences (etc.).²⁰ So Lewis' distinction focuses solely on long regularities in substantial truth-conditions. So just like Kaplan's second gloss on his distinction, Lewis' distinction does not leave open the issues we are going to address.

2.5 Language and socio-historical questions

One might object to the appeal I have made to regularities in the uses of expressions by speakers. One might draw a distinction between a language *per se* and the use of a language or the speakers of a language. One might then claim that I am not discussing the same subject matter as one is concerned with.

In response to this I have the following to say. The theories of languages which take the form of a formal semantics are empirical theories. Their constructors take pride in this fact. To be empirical one needs evidence of an empirical phenomenon. That evidence is the behaviour of speakers of different languages. That is the basis upon which hypotheses are formed and it is the gauntlet they have to run when tested. Such theories are theories about invariances in the behaviour of speakers and this is all I mean to speak of in speaking of regularities in the uses of expressions by speakers.²¹

3 Minimalists and contextualists on propositions and truth-conditions

Because it will help us to understand the position of OS relative to others, I want to employ our distinctions to attack an existing taxonomical trend. There is a division between what are called "semantic minimalists" and "radical contextualists." The difference is supposed to be that whereas the minimalists think that there is a minimal proposition associated with most (natural language) sentences, the radical

¹⁹ E.g. (Lewis 1973 [1983])

²⁰ Lewis (1969) introduces logically possible languages as solutions to such problems. That is the *raison d'être* of the regularity.

²¹ See (McDowell 1980 [1998], p.49) on this point.

contextualists think there is no such proposition. I suspect that this contrast is equivocal because what is meant by “proposition” in each case is different. Suppose that to say that a sentence has associated with it a proposition is to say that the sentence has certain truth-conditions. We can distinguish between two claims that might be made in saying this. The first is that sentences have logico-syntactic truth-conditions. The second is that sentences have substantial truth-conditions. There is good reason to believe that whereas the contextualists, in denying that sentences have associated with them propositions, mean to speak of substantial truth-conditions, the minimalists, in claiming that sentences have associated with them propositions, mean to speak of logico-syntactic truth-conditions. If that is so, then there is reason to doubt there is a real dispute between the two camps in this respect.

Two examples of radical contextualism are relevance theory and truth-conditional pragmatics. Relevance theorists talk of propositions as sentences of a language of thought: interpreted sentences of a formal language for which the phenomena typical of natural language sentences do not arise. Since such things have substantial truth-conditions, relevance theorists are using the word “proposition” in the substantial sense.²² The same is so of Recanati. He proposes that one examine intuitions about truth-conditions as follows:

One simply has to provide subjects with scenarios describing situations, or, even better, with – possibly animated – pictures of situations, and to ask them to evaluate the target utterance as true or false with respect to the situations in question. (Recanati 2004, p15)

If that is the notion of truth-condition with which Recanati operates, then he is not talking about (only) logico-syntactic truth-conditions. To discover logico-syntactic truth-conditions one has to uncover patterns of judgements about the truth (and other properties) of sentences (and other expressions) given the truth (and other properties) of other sentences (and other expressions). One does not need to document judgements about (close to) real situations as Recanati requires.

²² See section 6.4.1.2.

Semantic minimalists include Borg, and, Cappelen and Lepore.²³ Borg proposes that formal semantics has a very minimal job description. Its job is to do only two things. Firstly, “to reveal how the meanings of complex expressions are determined given the meanings of their component expressions, together with those expressions’ mode of composition.” Secondly, “to help reveal or capture the relations which pertain between those complex expressions, for instance revealing the inferential relations between sentences.”²⁴ These tasks do not require any commitment to there being long regularities in the substantial intensions or extensions of linguistic expressions.²⁵ So when she says:

To capture the literal meaning of a natural language sentence it is necessary and sufficient to determine its truth-conditional or propositional content, and, the formal theorist claims, this content can be recovered via syntactic trails alone. (Borg 2004, p.4)

...and adds, using “dual pragmatics” to speak of the likes of truth-conditional pragmatics and relevance theory:

...dual pragmatics rejects the idea that truth-conditional or propositional content can (usually) be recovered via formal methods alone. (Borg 2004, p.6)

...she is equivocating. For if all *she* means by truth-conditional or propositional content is that which is described by formal semantics, and if this concerns only what she outlines on the first page of her book, then she is talking about logico-syntactic truth-conditions. But the likes of truth-conditional pragmatics and relevance theory are not in the business of denying that sentences have *those*. They are in the business of denying that sentences have substantial truth-conditions.²⁶

²³ (Borg 2004) and (Cappelen and Lepore 2005).

²⁴ (Borg 2004, p.1)

²⁵ E.g. (Borg 2004, p.169, p.240). Borg does seem to waver in her minimalism when she assumes that a sentence of a natural language is to be mapped onto a sentence of a language of thought by a formal semantics (Borg 2004, p.24). Presumably the latter kind of sentence has substantial reference and truth-conditions but then if such a mapping obtains then a natural language sentence will also have substantial reference and truth-conditions. But this is precisely what she denies. So either there are LOT sentences which are just as vacuous as NL sentences, or, Borg ought to drop this commitment.

²⁶ (Borg 2009) practically acknowledges this.

Cappelen and Lepore propose that sentences have propositions, in some sense, associated with them. But what sense? The commitments one makes in expressing such a thing are something on which they stay silent. So I cannot pin on them precisely the view I think they have by citing explicit assertions to that effect. However, what we can do is check to see what reasons there are for thinking they are *not* adopting a view that is not in conflict with the likes of truth-conditional pragmatics and relevance theory. Here are two reasons.

One might be led into thinking they mean something more substantial than the logico-syntactic because of their concern with understanding and shared content in communication. But the passages in which they mention such concerns are still equivocal. If all that is meant by *understanding* a sentence of the form [s NP Pred] is that it is true just in case the extension of the NP falls within the extension of the predicate then that need not amount to understanding what someone has said in any substantial sense. It would not be enough to enable one to have a determinate and (if the uttered sentence is true) accurate expectation of how things are.

A second reason one might be led to think they mean something more substantial in their talk of truth, falsity, and propositions, is their attention to issues of metaphysics. They think that there is an answer to the question of what something that satisfies “is red” is *simpliciter*. But it is a job for metaphysicians to describe that. And what do metaphysicians do?

Think about what metaphysicians do...Suppose, for example, you're interested in what consciousness is. Then you ask a question like 'What do all conscious things have in common?' If you're interested in what causation is, you ask 'What do all events A and B have in common in which A causes B?'...Notice that none of these questions are *about* language. They are not about the expressions 'conscious,' 'cause'...They are not about how people use those expressions. They are *nonlinguistic* questions. (Cappelen and Lepore 2005, p.159).

So there is something that is a substantial extension of certain predicates. The predicate “is red” is about red things. But, as with Borg, what does this really amount to? What sentences give us on Cappelen and Lepore's view is not the kind of determinacy as to what to expect to be so which substantial truth-conditions are

supposed to deliver. Whatever *that* is, it is certainly not a basis upon which to communicate how things are in any sense determinate enough to act on, for instance. Of course, Cappelen and Lepore think there is something important about what sentences *do* deliver. But it is far from clear that the reason they think what they do deliver is important is that they deliver *these* sorts of things. They say, for instance, that such will not deliver the intuitive notion of what someone said.²⁷ Presumably this latter notion is supposed to deliver determinate expectations as to how the world needs to be for what was said to be true. In this they are not at all different from the likes of Recanati, and, Sperber and Wilson.

Cappelen and Lepore do consider our accusation but their discussion of this is equivocal. In an attempt to starkly distance themselves from their purported opponents, they say:

We think, and the Relevance Theorists deny, that there is a minimal semantic content or proposition that is semantically expressed by (almost) every utterance of a well-formed English sentence. This proposition is not a ‘skeleton’; it is not fragmentary; it’s a full-blooded proposition with truth-conditions and truth-value. (For elaboration, see Chapter 11.) This is a substantial disagreement about the metaphysics of content. (Cappelen and Lepore 2005, p.181)

The first sentence can be read in various ways depending upon how “semantic content or proposition” is understood: substantially or logico-syntactically. Hence, the equivocation which would mean there is no dispute is carried through into the very attempt to make the disavowal. Perhaps, you are thinking, there is a real dispute to be found in their Chapter 11? But that is the chapter where they discuss semantics and metaphysics and we have already seen how that discussion is equally equivocal on the matter of concern.

4 A hypothesis

We have in hand three distinctions: expressions versus expression instances; long versus transient regularities in the properties of linguistic expressions; and logico-syntactic versus substantial truth-conditions (satisfiers, referents). With them we can make out a hypothesis that one might be tempted to adopt:

²⁷ (Cappelen and Lepore 2005, p.181)

There are long regularities in the substantial extensions of expressions of natural languages.

The hypothesis is one to the effect that there is a language-environment regularity to be found (when observing speakers of a language) between instances of: (a) true sentences and conditions of the world; or/and (b) NPs and items as their referents; or/and (c) predicates and items as their satisfiers, which have the longevity of one's capacity to speak the language.²⁸ Some clarifications:

- The hypothesis applies only to non-logical and non-mathematic statements.
- One does not doubt the hypothesis if one thinks there are *some* expressions for which it does not hold, e.g. because of sentences that include indexicals for which there are no long regularities in substantial extension or because of sentences that are ambiguous (lexically and syntactically) or because one thinks NPs do not exhibit long regularities in their extensions. I intend the hypothesis to be that there are *some* expressions (e.g. predicates) for which there are long regularities in their substantial extensions.
- The regularities in question include those relativised to various parameters (for example, but not restricted to: w, i, and c) or other factors. It is not just about formal semantics that provide extensional analyses.²⁹
- There are those who hold differing views on what truth is. For example Dummett favours a switch from talk of truth-conditions to assertability conditions.³⁰ Several philosophers adopt a view according to which the truth predicate means different things for different domains of discourse: e.g. compare mathematics and ethics. By and large, I do not mean for the hypothesis to distinguish between these. The reason for this is that no matter what one's view on the nature of truth is, there is a natural phenomenon wherein speakers ascribe and withhold ascription of a property which they in English call "truth." This practice is connected with others to do with ascribing and withholding ascription of objects as referents of

²⁸ Travis has always been concerned with reference and satisfaction as well as truth-conditions. This is explicit in his (1975), (1978), (1980), and (1981) where a large number of pages are concerned with each. But in his (1985) and various more commonly cited subsequent papers, the referents of referring expressions are given less coverage. Though not zero coverage: see for instance Chapter 2 of (Travis 2006).

²⁹ Travis clearly means to reject any such view. See in particular (Travis 1978), (Travis 1981, pp.45-72), and (Travis 1997 [2008], pp.114-117).

³⁰ Cf. (Dummett 1959)

referring expressions and as satisfiers of predicative expressions. There may or may not be regularities of certain sorts in this practice. The hypothesis is a claim to the effect that there are certain regularities. These regularities are in part what supply the subject matter for theories of truth. They are not something that changes with different such theories. The exception to this indifference is logical and mathematical talk.

5 Two hypothesis believers

When we attack the hypothesis we will not be punching straw men. Here are two prominent philosophers of language who held this hypothesis: early Donald Davidson and David Lewis. Both of these thinkers attempt to outline what those engaged in the empirical study of meanings of linguistic expressions ought to be looking for. It is in doing this that each adopts the hypothesis.

5.1 Early Davidson

Davidson made claims about any theory that describes “the skill or ability of a person who has learned to speak a language.”³¹ Firstly, he claims that this ability is something one comes to have when one has learned to speak a language and it is one that is exercised in producing and understanding sentences of that language.³² So what is described will be something that *persists* from the time since one learnt the language on through one’s linguistic career; a *long* regularity. Secondly, he claims that the ability is one described by a theory which specifies the truth conditions of every sentence of the language in the style of a Tarskian theory of truth. Hence, it will explain the conditions of truth of sentences in terms of the referents and satisfiers of the constituent expressions in the sentence. The evidence for such a theory is supposed to enable formulation of empirical generalisations about, for example, what the satisfiers of predicates are as used by speakers.³³ Such things are not to be stipulated but instead constructed by observing the particular relations between expressions and their extensions. Hence the truth-conditions described by the theory of meaning, being explained as they are, must be substantial. So (early) Davidson’s theories of meaning are theories that document

³¹ (Davidson 1965 [1984], pp.7-8). I am supposing in this discussion that there are no significant differences between truth-theoretic formal semantics and model theoretic formal semantics which matter to the current discussion.

³² (Davidson 1965 [1984], p.8)

³³ See e.g. (Davidson 1967 [1984], p.26) and (Davidson 1973 [1984], pp.133-138).

long regularities in the substantial extensions of expressions of a language. Because he presupposes that there are such regularities, he adopts the hypothesis.

5.2 Lewis

As we saw earlier, Lewis distinguishes between *possible* languages and languages *used* by a person or population. This distinction involves adoption of the hypothesis. A possible language is a formal semantics that provides substantial truth-conditions (etc.) for its sentences (etc.). For such to be used is for there to be a long regularity in the use of expressions that can be described using this formal semantics.³⁴ So Lewis adopts the hypothesis.

6 Occasion-sensitivity

Occasion-sensitivity can now be defined as the denial of the hypothesis. It is denied that there is a long regularity in the substantial extensions of expressions of natural languages. According to OS, to expect there to be long regularities in the substantial extensions of an expression of a language is like expecting a long regularity in the colour of an expression of a language. For instance, a predicate of a language does not have a colour. Just as there are no long regularities to be found in the colours of instances of the predicate “is 100 years old” there are no long regularities to be found in the substantial satisfiers of the predicate, “is 100 years old,” not even as relativised to various further factors. Just as this is in no way to deny that (some) instances of the predicate “is 100 years old” have colours, this is in no way to deny that instances of the predicate can and in many cases do have substantial satisfiers.

6.1 Travis’s own exposition.

The way I have defined OS (as the rejection of a hypothesis) is an attempt to avoid a problem that faces Travis’ statement of his own view. You may recall that earlier I stated that Travis’ statement of his own view is equivocal when read in an environment populated by similar proposals. My definition of OS might appear to be some distance from Travis’ more typical statements. I want to show how the two are related. An example of such a statement is the following:

³⁴ See Lewis (1969, Chapter 5), (1970, p.190), and (1973 [1983], pp.163-166).

...it would seem that the meanings of sentences are *not* to be explained in terms of truth conditions, sentences bearing the former but not the latter, and mutatis mutandis for sentence parts. (Travis 1985, p.188)³⁵

So, sentences do not have truth-conditions. To begin, it is clear enough that the reason he gives in this paper for thinking sentences do not have truth-conditions is not that NPs (*per se*) have no referents (even though we know he thinks that too). The point is supposed to apply to all linguistic expressions (sentences and their parts).

Of his claim we can raise two exegetical questions: is he speaking of substantial or logico-syntactic truth-conditions? and: does he mean to deny that sentences have truth-conditions (in some sense) *tout court*, or only that there is a *long* regularity in the truth-conditions (in some sense) of sentences?

This gives us two questions and hence, depending upon the answer to each, four possible readings:

- 1) There are no long regularities in the logico-syntactic truth-conditions of sentences.
- 2) There are no long regularities in the substantial truth-conditions of sentences.
- 3) There are no transient regularities in the logico-syntactic truth-conditions of sentences.
- 4) There are no transient regularities in the substantial truth-conditions of sentences.

Only (2) is being said in the Travis quotation. I aim to show this by examining the context of the quotation. But note: taken on its own, the quotation can be read these four different ways. That will prove important in two respects. Firstly, insofar as this statement is typical, it helps us understand why Travis' work is so often treated as not significantly different from what I will come to call "further

³⁵ The reprint of this paper in (Travis 2008) is substantially revised. You will not find the quoted passage there. For similarly problematic statements see (Travis 1997 [2008], p.109) and (Travis 2008, p.2). I will assume henceforth that there is not significantly more to the claim that the meaning of a sentence should not be explained in terms of truth-conditions than that a sentence does not have truth-conditions.

factor views.” Secondly, that this statement (and others) can be read as (1), has, I think, led to some confusion about whether Travis seeks to deny the veracity of empirical work done by formal semanticists.³⁶ We will now take our two questions in order.

Is Travis talking about substantial or logico-syntactic truth? He says of a sentence that, given the evidence he presents, “one would also expect that there could not be a (substantive) condition for its truth.”³⁷ So Travis distinguishes between substantive and some other kind of condition for its truth. So there is room for some notion of a condition for a sentence’s truth, but not a “substantive” condition. What might be meant here? In footnotes 5 and 6 of that paper we find the targets of the 1978 paper and the 1981 book: early Davidson and Lewis. From this we know that the substantive notion is one to be found in those authors. As we have just seen they propose theses about *substantial* truth-conditions and not only logico-syntactic truth-conditions. So then, given such targets to which Travis opposes himself, he must be speaking of substantial truth-conditions in our sense; that is, truth-conditions in the sense that Lewis and early Davidson claim sentences of a language possess. I am going to assume that whatever would be a less than substantive notion of truth-condition, it encompasses what I have called logico-syntactic truth-conditions. If the reader doubts this, the reader can suppose that Travis leaves that question open. Nonetheless, (1) and (3) are stronger claims than Travis’ prose gives reason to ascribe. Indeed, what is at issue in practically all of Travis’ writings on this subject is *what counts as being* a referent or a satisfier or a condition of truth of an expression. The logico-syntactic properties of expressions are left untouched by conclusions drawn on such issues. No intent contrary to this is ever expressed.

Is Travis denying that there are long regularities or that there are ever any regularities to be found in the substantial truth-conditions of sentences? To answer this question we need to situate Travis’ remarks relative to our distinction between expressions and expression instances. Travis draws this distinction himself. For instance, he speaks of “an expression – e.g., an English one...”³⁸ The use of the modifier “an English” appears regularly in his work to mark a contrast between

³⁶ See section 6.3.

³⁷ (Travis 1985, p.188)

³⁸ (Travis 1985, p.187)

sentence type and a historical instance of such. In the 1985 paper he distinguishes an English expression from some production of it:

...typically, an (e.g.) English expression is such that, with its meaning (unambiguously) fixed, there are a variety of distinct (perhaps better: distinguishable) things to be said in using it on some production of it or other. (Travis 1985, p.187)³⁹

So in the paper we are discussing, when he denies that sentences' meanings are to be explained in terms of truth conditions, he is speaking of sentences as contrasted with instances of such. The sentences are "of a language" and so I think it safe to understand him as speaking of the kind of thing one learns when one learns to speak a language, and things of which one has knowledge for the duration for which one speaks the language. So the quotation targets a claim about long regularities in substantial truth-conditions of sentences and not their having truth-conditions *tout court*. This is also evidenced by the fact that he does ascribe substantial truth to sentences.⁴⁰ If he were making the denial that there were even transient regularities in the substantial truth-conditions of sentences, then he would not make such remarks. So the quotation ought not to be read as (4) or then again, this time for a different reason, (3).

We are left with (2) as the only plausible reading of the quotation once the surrounding prose is taken into consideration. This is so even though it is equivocal when that surrounding prose is ignored, as our two exegetical questions make plain.

6.2 OS and the later Davidson

Travis explicitly distinguishes OS from the ideas of the later Davidson. My gloss on OS can be read as a version of the later Davidson's view. This suggests a need for clarification.⁴¹

Travis discusses Davidson's later work in order to provide a reading of a sentence by Timothy Williamson.⁴² The sentence is:

³⁹ See also (Travis 1981, p.26, pp.37-38)

⁴⁰ (Travis 1985, pp.199-200)

⁴¹ I will ignore Davidson's (1986, p.444) flirtation with variations across members of a community of, apparently, typically logico-syntactic regularities.

...[Travis] simply takes the sameness in meaning of the words in his examples as obvious, and does not discuss the possibility of slight meaning changes, as postulated below. (Williamson 1998, 10 n) (Quoted (Travis 2009 [2008], p.174))

Travis then glosses this with the following:

[Williamson's view of meaning] is that the meanings of words change, sometimes subtly, over time...I think the meaning changes Williamson has in mind here are meant to support a certain idea about what meaning does. In the case of a predicate, such as 'is round', that idea would be that, for a *fixed* meaning (its meaning at a moment), there is a unique, invariant contribution it would make to the truth condition of any whole it was a part of while meaning that. Though the meaning of 'is round' may change over time, freeze it at a time, and it does have a satisfaction condition of just the sort Davidson envisaged...But for currently irrelevant details as to how an idiolect is fixed, and the importance of speaker intentions (or understandings) in fixing what was, in fact, said on an occasion in given words, this idea about meaning is essentially the later view of Donald Davidson on that topic. (Travis 2009 [2008], pp.177-178)

Travis complains that this is "not yet the result we wanted." The reason this is not the view Travis favours is that he thinks that with changes in, for instance, what satisfies a given predicate (like, "is round"), there is no change in the *meaning* of the predicate and that this indicates that the meaning of a predicate does not settle what satisfies the predicate. But Davidson's view was that the meaning constantly shifted and that that is why there are changes in the satisfiers of a predicate if there are any: because that which determines what the satisfiers are, namely meaning, shifts.

So far in describing the hypothesis I have made no claims about meaning. The hypothesis has concerned something which may or may not be the meaning of a linguistic expression. So how does meaning, and the later Davidson's view, relate to what has been said here? That depends on what is meant by "meaning." Often when we speak of the meanings of words we do not speak of things which shift from

⁴² (Travis 2009 [2008])

instance to instance of those words. We speak of things which shift over longer periods of time than that. For instance, the word “girl” used to mean a young person. It now means a young female. So now if one were to speak of a newborn which is male by saying “it is a girl” one would speak falsely whereas presumably at some point in the past, one would not have done so. But the word “girl” does not change its meaning, in this sense of meaning, from instance to instance of it. You do not at one moment use it to speak of what we ordinarily speak of as windows, at another moment to speak of what we ordinarily speak of as Americans, and at another to speak of what we ordinarily speak of as crustaceans. You would be misusing the word if you did this. You would not be speaking English. That is one way to use the word “meaning”: to speak of something that limits the correct usage of a word in this sort of way. But one could also use the word “meaning” in another way. One could say that by “meaning” one means to speak of the extension or something which, given various other factors, determines the extension of an expression. If so, and if OS is true, then, one could say that there are changes in the meaning of “girl” from instance to instance. But if one used the word “meaning” in this second sense one need not have been claiming what one would have been claiming had one used it in the first sense. One would not be claiming that one minute one can use “girl” to mean what is usually meant by “crustaceans” and another “Americans.”

Davidson’s later view was argued for on the basis of the understandability of malapropisms. In such cases, one uses a word which in English, for instance, means something which rules out one’s usage as correct. One uses “epithet” for what is usually spoken of with “epigram” for instance. That is an example of using the word with different meanings in the first sense of “meaning” just considered. That gives us reason to gloss Davidson’s later view as: the meanings of words, in the first sense, change from instance to instance. But so read, rejection of the hypothesis is not the later Davidson’s view. For the hypothesis does not say anything about meaning so understood. So read, we can agree with Travis that OS is not to be identified with the later Davidson’s view.

But there is also reason to suspect that Davidson did *not* mean to deny that meanings of words, in the first sense, remain invariant across the uses of expressions during roughly the length of time a speaker speaks a language. Although he argued the point by means of malapropisms, the conclusion he

reached was actually expressed in terms of T-theories. T-theories concern extensions of expressions. To propose that these change from instance to instance of an expression is to propose that there are on-going changes in the meaning of expressions in the *second* sense of “meaning.” Read in that way, rejection of the hypothesis *is* of a piece with the later Davidson. But then it is not clear, in this case, that Travis’ own view should be distinguished from Davidson’s later view, so read, either.

To summarise, we can distinguish two ways to read the later Davidson. Read one way, Travis is right to distance himself from Davidson, but in that case rejection of the hypothesis is not adoption of the later Davidson’s view. Read the other way, Travis is wrong to distance himself from Davidson on the ground that he does and rejection of the hypothesis would be to adopt Davidson’s view.

6.3 OS and compositional semantics

There is a tendency by some to interpret OS as a rejection of formal semantics. In particular, the linguistic phenomena motivating OS are taken to be challenges to a principle of compositionality wherein the truth-value of a sentence depends upon contributions made by the constituents of the sentence. Szabo claims that Travis presents counterexamples to a principle of compositionality and this causes Szabo to propose a novel semantic analysis of the sentences he thinks are affected by the phenomenon in an attempt to expunge it from the analysis.⁴³ Pietroski claims that Travis is proposing that formal semantic analyses of sentences cannot be given because of what Travis cases are supposed to show.⁴⁴ Kennedy and McNally⁴⁵, Predelli⁴⁶, and Stanley⁴⁷ each make the same accusation.

It should be clear by now that this is simply not true. OS is a rejection not of the results got from that enterprise but of a particular interpretation of them. According to OS they should be understood as describing logico-syntactic truth-conditions and not substantial truth-conditions. There is no need to deny the compositional element to be found in formal semantics because of this.

⁴³ (Szabo 2001) on (Travis 1994 [2008]). In a later paper, Szabo (2010) discusses the same paragraph and again supposes that it is evidence against compositionality which needs to be responded to.

⁴⁴ (Pietroski 2003, p.234 and fn.14) on (Travis 1985).

⁴⁵ (Kennedy and McNally 2010, pp.80-81) on (Travis 1997 [2008]).

⁴⁶ (Predelli 2005) and (Predelli 2005a)

⁴⁷ (Stanley 2007, p.80) on (Travis 1997 [2008]).

6.4 OS and further factor views

There is a variety of views about the truth-conditions of sentences which we can call “further factor views.” We have already seen semantic analyses which make the truth-value of a sentence depend upon more than the constituent expressions of that sentence and their mode of combination. The parameters *w*, *i*, and *c* in our toy semantics do that. I do not want to call *these* “further factor views.” The views I want to call that introduce elements beyond the constituent expressions of a sentence *and* those features mentioned in our toy semantics upon which the truth-value of a sentence depends. Henceforth that is what will be meant by talk of further factors. To adopt a further factor view is not necessarily to reject the hypothesis. One can maintain that there are long regularities in the substantial truth-conditions of sentences that include hitherto unconsidered further factors.

6.4.1 Psychological further factor views

The following position is also possible: there are further factors relevant to the truth-value of instances of a sentence and these factors are psychological properties of an interlocutor (speaker or hearer of the sentence). This is a sub-variety of further factor view: *psychological further factor views*. Whether such a view is to reject the hypothesis depends upon whether one thinks there is any pattern in the relevance of these psychological further factors that persists *for a long longevity*. One need not think that. One could allow that there are psychological factors relevant to the truth-value of instances of sentences but suppose that there is no long-longevity to their relevance. But one could also think that there is such a thing.

OS is commonly put under the banner “radical contextualism.”⁴⁸ Views which also fall under that banner include Recanati’s truth-conditional pragmatics⁴⁹ and Sperber and Wilson’s relevance theory.⁵⁰ However, there is good reason to think that the latter two views are psychological further factor views that maintain the hypothesis. If so, placing all three views in one category is a confusing mistake.

⁴⁸ Since, that is, the taxonomically influential (Cappelen and Lepore 2005)

⁴⁹ See (Recanati 2004) and (Recanati 2011)

⁵⁰ See (Sperber and Wilson 1986) and (Sperber and Wilson 1995)

6.4.1.1 Truth-conditional pragmatics

One might suppose that there is a long regularity in the semantic values of linguistic expressions. Recanati proposes that this is a kind of default position. But that when speakers speak there is a process, which he calls “modulation,” wherein the semantic values of expressions are modified from what they are by default. Modulation is not a random process. Someone’s psychological apparatus includes a pool of semantic values. These can vary in “accessibility”: variation in which semantic value is the more or less accessible. This variation is affected by factors other than the linguistic expression employed. Semantic values compete to be the actual semantic value of an expression instanced. That which is most accessible becomes the semantic value of the expression as used.⁵¹ Recanati adds to this that modulation is describable as a function *mod* which takes an expression and a context of use as arguments and returns a modulation function.⁵² A modulation function when applied to an expression modifies the extension of the expression in some way. E.g. $mod(\text{‘the city’}, c) = g_{513}(\text{CITY})$, where g_{513} is a modulation function, and, $g_{513}(\text{CITY}) = (\text{INHABITANTS OF THE CITY})$. Instead of operating on the extensions of expressions that the valuation function *F* assigns, a formal semantics operates upon the values of modulation functions that are the values of *mod* as applied to an expression in a given context. Hence rather than using semantic rule (c) from our toy semantics:

$$c) \ I([_s \text{ NP Pred}])^{M,w,i,c,g} = 1 \text{ iff } I(\text{NP})^{M,w,i,c,g} \in I(\text{Pred})^{M,w,i,c,g} \text{ and } 0 \text{ otherwise.}$$

...we should instead use (c''):

$$c'') \ I([_s \text{ NP Pred}])^{M,w,i,c,g} = 1 \text{ iff } mod(I(\text{NP})^{M,w,i,c,g}, c)(I(\text{NP})^{M,w,i,c,g}) \in mod(I(\text{Pred})^{M,w,i,c,g}, c)(I(\text{Pred})^{M,w,i,c,g}) \text{ and } 0 \text{ otherwise.}$$

Because modulation is a psychological process about which Recanati supposes a general theory could be constructed, and because it is reasonable to suppose that a psychological theory will identify regularities of a long-longevity, we can see that there is good reason to suspect Recanati of adopting a psychological further factor

⁵¹ Recanati (2004, p.30). There is an additional complexity involving schemata that makes no difference to what is currently at issue.

⁵² (Recanati 2011, esp. pp.9-10)

view that includes commitment to the hypothesis.⁵³ *mod* is a general way in which context interacts with expressions to modify the truth-conditions of expressions. It is general in the sense that there is a long regularity in the conditions under which speakers of a language count sentences true which is described by *mod* (in conjunction with a full specification of the modulation functions that are the values of *mod*).⁵⁴

6.4.1.2 Relevance theory

Whereas truth-conditional pragmatics operates with a model of the mind as a pool of semantic values with greater or less accessibility, relevance theory operates with a model of the mind as information processor. Something like accessibility still has a role to play but it operates on different units to that envisaged by Recanati. Let us distinguish between NL-sentences (natural language sentences) and LOT-sentences (language of thought sentences). Notably LOT-sentences are not supposed to exhibit the same behaviour as NL-sentences.⁵⁵ LOT-sentences can be understood as sentences of an interpreted formal language.⁵⁶ On the relevance theoretic view NL-sentences have the truth-conditions of LOT-sentences; but which LOT-sentence for which NL-sentence? The general idea is that LOT-sentences vie for providing the truth-conditions of an NL-sentence in a similar way to the way semantic values vie for being the semantic values of constituent expressions of NL-sentences in truth-conditional pragmatics. More specifically though, relevance theorists tell the following story about episodes of communication with NL-

⁵³ That it is a psychological theory that is in question peppers Recanati's writings. That the theory is supposed to provide generalisations (which presumably, given the definition of *mod*, will generate predictions about when speakers will classify sentence instances as true, for a long longevity) can be seen in remarks such as at (Recanati 2011, p.11).

⁵⁴ It is possible that the way in which *c* gets its value is not something which is invariant for a long longevity. Then Recanati would not be upholding the hypothesis. But if that were so, there would be no point in adding the material he is here proposing to a formal semantics at all. Why not just allow the model of the formal semantics to vary? I assume that he would not add pointless extensions to that formal semantics. I think he does so because he thinks there is something to document here which has the same longevity as logico-syntactic truth-conditions. Therefore I assume that how *c* gets its value is invariant for a long longevity.

⁵⁵ This is implicit in their exposition. But if LOT-sentences were to be just like NL-sentences, then the account relevance theorists offer of communication and understanding would simply not be an account of any such thing. That this is being supposed also renders relevance theory vulnerable to the argument of Chapters IV and V. That argument applies as much to LOT-sentences as it does NL-sentences.

⁵⁶ (Sperber and Wilson 1995, pp.172-173)

sentences, and therein, about how instances of NL-sentences have the truth-conditions they do.

Consider a speaker and an addressee. An ostensive stimulus is a stimulus which when presented by a speaker indicates that the speaker has a communicative intention.⁵⁷ A communicative intention is an intention that the addressee infer that the speaker has an informative intention.⁵⁸ An informative intention is an intention that the addressee infer a given LOT-sentence.⁵⁹ When a LOT-sentence plays this role we will call it the characteristic LOT-sentence of the pertinent communicative intention. NL-sentences are ostensive stimuli.

Unfortunately NL-sentences underdetermine what the characteristic LOT-sentence is: for a given NL-sentence there is not a corresponding LOT-sentence. So an addressee cannot discern what a speaker is communicating just by examining the NL-sentence a speaker produces. Fortunately, a production of an ostensive stimulus “communicates a presumption of its own optimal relevance.”⁶⁰ So one thing the addressee can bank on when she attempts to identify the characteristic LOT-sentence the speaker is attempting to communicate is that whatever the characteristic LOT-sentence is, it is optimally relevant. So if the addressee can discern what is the optimally relevant LOT-sentence, she can discern what is the characteristic LOT-sentence of the speaker’s communicative intention.

What is optimal relevance? Relevance *simpliciter* consists of a ratio between contextual effect and processing effort.⁶¹ A LOT-sentence’s contextual effect is the effect produced when it is combined with a context. A context as here understood is a set of LOT-sentences which are “manifest” at the time at which the ostensive stimulus is presented, which means, such that a cognitive system is “capable of representing [them] mentally and accepting [their] representation as true or probably true.”⁶² The effect could be the strengthening or weakening of a member of context; the inference to new members of context; or the inference to the negation of present members of context.⁶³ The processing effort is how much time

⁵⁷ (Sperber and Wilson 1995, p.153)

⁵⁸ (Sperber and Wilson 1995, p.61)

⁵⁹ (Sperber and Wilson 1995, p.58)

⁶⁰ (Sperber and Wilson 1995, p.158)

⁶¹ (Sperber and Wilson 1995, pp.144-145; pp.152-153)

⁶² (Sperber and Wilson 1995, p.39)

⁶³ (Sperber and Wilson 1995, pp.108-117)

and energy has to be put into a cognitive process.⁶⁴ The more energy and time spent, the greater the effort.

A LOT-sentence is *relevant* to the extent that it has large contextual effects with little processing effort.⁶⁵ A LOT-sentence is *optimally* relevant if and only if (a) it is relevant enough to be worth the addressee processing it, and (b), the LOT sentence is the most relevant compatible with the communicator's abilities and preferences.⁶⁶ Hence, when a speaker attempts to communicate a given LOT-sentence to an addressee, the speaker attempts to express a LOT-sentence that is relevant "enough" to that addressee to be worth processing and the addressee attempts to identify a LOT-sentence that the speaker would think is "most relevant" to the addressee. So, the underdetermination of the characteristic LOT-sentence by the NL-sentence produced in communication does not thwart successful communication because the speaker will only attempt to express optimally relevant LOT-sentences and the addressee will act as though this is so.

However, this will lead to successful communication (identification of one and the same LOT-sentence as the characteristic LOT-sentence) only if the context by which the addressee calculates the relevance of LOT-sentences is the same as the context by which the speaker calculates the relevance of LOT-sentences. Otherwise there is no reason to expect the same LOT-sentence to be identified by each by means of the procedure described by relevance theorists in episodes of communication.⁶⁷ Attempting to calculate the most relevant LOT-sentence would be like trying to identify a chameleon by its colour: what counts as relevant, in this technical sense, would be left indeterminate because disparate between speaker and addressee. So then we should ask: what ensures that both interlocutors employ the same context in their calculation of the relevance of LOT-sentences?

Sperber and Wilson draft in an additional assumption to alleviate this concern. Part of relevance theory is the *cognitive* principle of relevance: "Human Cognition tends to be geared to the maximisation of relevance."⁶⁸ The additional assumption

⁶⁴ E.g. (Sperber and Wilson 1995, p.46)

⁶⁵ (Sperber and Wilson 1995, p.125)

⁶⁶ (Sperber and Wilson 1995, p.158; p.270)

⁶⁷ I am assuming that since LOT-sentences are elements of human psychology that all interlocutors share the same LOT-sentences or the capacity to have the same LOT-sentences.

⁶⁸ (Sperber and Wilson 1995, p.260)

is that this cognitive principle “does indeed make the cognitive behaviour of another human predictable enough to guide communication.”⁶⁹ That human cognition (each interlocutor’s cognitive system) “tends to be geared to the maximisation of relevance” is something that explains how interlocutors identify the same context by which to interpret an NL-sentence only if it led to the same context being used for interpretation by each. Hence, the cognitive principle of relevance must entail that the cognitive systems of interlocutors generally will make the same LOT-sentences salient in the same circumstances. But then part of the relevance theoretic story about communication is this: the contexts used by speaker and addressee to calculate the relevance of a LOT-sentence, when faced with an NL-sentence in a particular environment, are generally the same because the interlocutors share the same cognitive apparatus.

The truth-conditions of an NL-sentence can now be described in the following way. Given a particular environment in which an NL-sentence is produced, there will be a corresponding context which all interlocutors who are capable of communicating will share. We can categorise environments by the contexts that correspond to them. We can then say that there is a function which has as its arguments an NL-sentence and an environment type, and has its values, LOT-sentences. If there were not this regularity, then an estimation of what is optimally relevant would not be a way to estimate a determinate LOT-sentence. There would be what is most relevant to me and what is most relevant to you, but no way to ensure these coincide. An objective property of relevance requires a coincidence of interpretation of the communicative episode, shared by both interlocutors. According to relevance theory, there is this coincidence *because interlocutors share the same cognitive apparatus*. Because this regularity is a cognitive regularity, it has the longevity of our cognitive infrastructure, a long regularity.

Finally, this regularity is one in the *substantial* truth-conditions of NL-sentences. For NL-sentences have the truth-conditions of particular, though varying, LOT-sentences and LOT-sentences supply what is learned in communication. If they were only logico-syntactic truth-conditions it would be highly misleading to call this ‘communication’ and its success ‘understanding.’

⁶⁹ (Sperber and Wilson 1995, p.263)

As with truth-conditional pragmatics, the assumption is maintained that there are long regularities in the substantial truth-conditions of sentences to be found. What relevance theory and truth-conditional pragmatics put in place of a more traditional approach is that these regularities will include various psychological processes. But *those* processes have a long longevity. For this reason they include commitment to the hypothesis and far from being of a kind with OS, contradict it.

CHAPTER II

Travis' arguments against the hypothesis

1 Three arguments

The purpose of this chapter is to evaluate Travis' arguments against the hypothesis. I will discuss three Travisian arguments.⁷⁰ The first is an argument from an examination of the linguistic data. The second and third are arguments drawn from his readings of Wittgenstein's *Philosophical Investigations*.⁷¹ The first argument can only lead to stalemate. The data available do not decide whether the hypothesis is true. The second and third arguments do not establish the hypothesis' falsity even if they are sound. At best these arguments support the inherent need for exercises of judgement in language use. But that alone is not sufficient to show that there are no patterns in the exercise of judgement which could make the hypothesis true.

2 The argument from cases

Let us consider the argument from linguistic data or cases. The argument begins by first enumerating some linguistic phenomena that have come to be known as

⁷⁰ There may be more arguments than I have been able to find. A strong candidate for an argument that will not be discussed here can be found in Travis' King's College London inaugural lecture, 'Thinking about thinking.' There he presented various observations made by Frege in support of denying a version of the hypothesis for thoughts. One might think there is an argument to be found in (Travis 2000). I do not think so. The only arguments I have been able to find in that publication essentially appeal to linguistic data and so are instances of the argument from cases. The conclusion that Travis has not provided an argument to show that the hypothesis is false is limited in its pretensions to publications up to and including (Travis 2008). I have not scouted Travis' second collection of papers for relevant arguments.

⁷¹ (Travis 1989) and (Travis 2006).

Travis cases. These concern predicates and their satisfiers.⁷² This argument concerns the hypothesis as it pertains to them. They have the following form. Take a simple sentence of a natural language such as:

1) That is a duck.⁷³

Then tell n stories within which (1) is uttered. The same object is the referent of “that” in each story and this object is in an unchanged condition in each story. Nonetheless, it is an intuition of native speakers of English that (1) fluctuates in truth-value across each story. Here are three such stories. In each story Fred is walking with his young nephew beside a pond where a decoy duck is floating and pointing to the duck, Fred says (1). But the stories diverge resulting in the following shifts of truth-value of (1):

Story 1: ...If Fred had just finished laughing at a sportsman who blasted a decoy out of the pond, and if he has been trying to show his nephew how to avoid similar mistakes, then what he said is false.

Story 2: But suppose that Fred and his nephew are attending the annual national decoy exhibition, and the boy has been having trouble distinguishing ducks from geese. Then what Fred said may well be true.

Story 3: It might also be true had Fred said what he did in pointing out the fact that all the other ducks were poor copies (perhaps on the order of Donald Duck), and that this is what a proper duck looks like. (Travis 1975, p.51)

Here is a second illustration. The most hackneyed example of a Travis case includes a sentence which is about some leaves that are naturally red but have been painted green. The sentence is:

2) The leaves are green.

Two stories for this sentence are:

Story 4: Suppose that someone’s son is asking for some green objects for a photography project. You might well offer the painted leaves that have been

⁷² The same style of argument can be applied to the referents of referring NPs.

⁷³ The example, (1), and the subsequent stories are taken from (Travis 1975, p.51).

gathering dust in your closet since Christmas. You might well say (2) and what you say would, it seems, be true.

Story 5: But if someone's daughter asks you for some green leaves for a chemistry practical, and you offer your old Christmas decorations, and you say of them, (2), then what you say, it seems, would be false.

The sentences, (1) and (2), are presented as a sample of what Travis claims can be done for any sentence. It is assumed that indefinitely many stories can be generated in which the truth-value of a sentence (any sentence) can be made to change without changes to the object (and its condition) that the sentence is about. That is the first stage of the argument from cases: enumeration of cases. This is supposed to give reason to think the changes in whether an item falls within the extension of a predicate (i.e. is a satisfier of it) are pervasive across predicates of a natural language.

The second stage of the argument is argumentative. A formal semantic analysis of a sentence is a function from the extensions of expressions and some other factors (world and time) to a truth-value. According to the hypothesis, a formal semantics, and therefore this function, is supposed to describe a *long* regularity in the substantial extensions of the expressions constituting the sentence. Typically, when constructing a formal semantic analysis for a sentence, the extensions of expressions are not explicitly identified. However, if a long regularity in the substantial extensions of the expressions constituting the sentence is indeed what is being described, then there should not be changes in the intuitive truth-value of the sentence across its instances when there is no change in the expressions and other factors that provide the arguments to the function described by the formal semantics. So, if one can show that the truth-value of a sentence can change across its instances despite no change in the expressions and the other factors of the analysis, then the extensions of the constituent expressions of the sentence are not constant across the different instances of the sentence (not even as relativised to these factors). If it can be shown that for *any* formal semantic analysis of a sentence there can be changes in its truth-value without any change in expressions

or the other factors in the analysis then formal semantic analyses do not describe long regularities in the substantial extensions of linguistic expressions.⁷⁴

Let us have in view a starting semantic analysis of (1) and (2). For simplicity I will analyse each as an NP conjoined with a predicate:

- 3) [S [NP That] [Pred is a decoy duck]]
- 4) [S [NP The leaves] [Pred are green]]

These can then be analysed with the recursive semantic rules of Chapter I, centrally:

$$c. \ I([_s \text{ NP Pred}])^{M,w,i,c,g} = 1 \text{ iff } I(\text{NP})^{M,w,i,c,g} \in I(\text{Pred})^{M,w,i,c,g} \text{ and } 0 \text{ otherwise.}$$

Let us suppose that “is a decoy duck” and “are green” are assigned intensions by the valuation function F in a model M_2 . They are assigned extensions relative to each value of w , i , and c for M_2 . The predicates belong to the syntactic category V_i . The model is:

$$F(\text{That})(c_1) = a$$

$$F(\text{The leaves})(w_1, i_1) = c$$

$$F(\text{is a decoy duck})(w_1, i_1) = \{a\}$$

$$F(\text{are green})(w_1, i_1) = \{c\}$$

This analysis, if intended as a documentation of a long regularity in the substantial truth-conditions of (1) and (2), fails. The expressions and the other factors (world, time, and context) in these analyses of (1) and (2) do not change across the stories of (1) and (2) but their intuitive truth-values do. These truth-value changes should not be possible if the analyses are descriptions of long regularities in the substantial extensions of the relevant expressions. So the analyses cannot be descriptions of such a thing.

We will now examine some alternative proposals that one might offer in response to Travis cases. The proposed analyses will be divided into two sorts: the standard

⁷⁴ Cf. Chapter I, section 6.3. A principle of compositionality is being assumed in this reasoning. Those who think that, by means of Travis cases, Travis is challenging such a principle do not consider the possibility that he is rejecting the hypothesis instead. In his words, the meaning of a sentence is not to be understood in terms of truth-conditions.

and the non-standard. The standard analyses are attempts to show that something like our starting analysis is correct. The non-standard analyses are attempts to show how the starting analysis can be modified to account for the phenomenon.

2.1 Standard semantic analyses

2.1.1 Lexical ambiguity

Words can be ambiguous. For instance, “port” is ambiguous between a docking station for ships and a kind of alcoholic drink. E.g.:

- 5) It was very dark for a Portuguese port.

This sentence can be used differently on different occasions. Sometimes with “port” used to speak of shipping docks and sometimes with “port” used to speak of an alcoholic drink. Because of this, the sentence can change in truth-value across such occasions; a single item spoken of across such occasions may be dark in one respect but not the other. One might propose that there is this kind of lexical ambiguity in (1) and (2). On this view, we would need different semantic analyses for the different uses of the sentences because the expressions employed would have multiple entries in the valuation function F of M_2 on the different occasions. In a sense, it was not really the same sentence being uttered across the different stories. If this were not so then no change in truth-value would be possible.

Is “duck” ambiguous between plastic duck and live duck? Not in the way that “port” is ambiguous. There are ambiguities possible. There is the difference between lowering oneself rapidly and a certain kind of bird. One could use the word “duck” as a noun to describe either of these. Similarly, “green” can be used in various different ways: e.g. it can be used to say of someone that they are naive or that they favour environmentally friendly political policies. But these alternatives are not the right alternatives for our stories. We were not thinking that *these* kinds of things were being said in any of those stories. One might propose that there is an ambiguity between being green on the outside and green on the inside. But the word “green” is not ambiguous between these usages in the way that “port” is ambiguous between docks and drinks. These are not different entries one might find in a dictionary. So it is not a reasonable analysis of (1) or (2) that their words are ambiguous in the sense that some words are.

2.1.2 Syntactic ambiguity

The syntactic structure of some sentences is ambiguous: given the words and their order, the sentence can be analysed into two different structures depending upon which words we treat together as units. For example:

- 6) You are welcome to visit the cemetery where famous Russian and Soviet composers, artists and writers are buried daily except Thursday.⁷⁵

This sentence is ambiguous between a reading on which “daily” is an adverb of “visit” and a reading on which “daily” is an adverb of “buried.” Because of this, the sentence can fluctuate in truth-value from use to use. Sometimes it is used with one syntactic structure and says something true (viz. that one can visit daily) and sometimes it is used with the other syntactic structure and says something false (viz. that famous Russian and Soviet composers, artists and writers are buried daily). Perhaps there is a syntactic ambiguity in (1) and (2): there are different syntactic structures and so different semantic rules would be relevant to determining the truth-value of the pertinent sentence. If this were stopped from fluctuating, then there would be no change in truth-value for this sentence.

But in neither (1) nor (2) is there any structural ambiguity that would account for the change in truth-value of each sentence across the different stories. There are not multiple ways to group together the words into syntactic constituents of the sentence in such a way that two or more readings of the sentence, with the different truth-conditions, can be generated.

2.1.3 Indexicals

One source of changes in truth-value across different uses of a sentence is the presence of an indexical or demonstrative expression, like “he” or “this.” But clearly there are no indexical or demonstrative expressions in (1) or (2) that are relevant. In (1) there is the demonstrative but we have stipulated that it is the same object that is in question in the three stories. Suppose the nephew names the duck “Charlie.” Then we could rewrite (1) as:

- 7) Charlie is a duck.

⁷⁵ Example taken from: <http://www.gray-area.org/Research/Ambig/>

With this we could rerun the Travis case with the same conclusion as before. Indexicals and demonstratives are not the source of the fluctuation.

2.1.4 Tense

A formal semantic analysis readily allows changes in truth-value that arise from changes in values of *i* across different uses of the same sentence. Perhaps that is what is happening in the case of (1) and (2)? Perhaps there are changes in the time at which the sentences are uttered to which the change in truth-value can be changed? No. First, we can provide stories in which the utterances are cotemporaneous. Suppose two people utter the sentence at the same time, speaking of the same object. If the circumstances were nonetheless as they are in the stories for each speaker, then, there would still be a divergence in truth-value. Second, even if we do not imagine this, it is difficult to see *why* a change in time requires a difference in truth-value of the claims made. So long as the objects spoken of remain the same and in the same condition, and so long as there are no differences between the times of utterance for each utterance that have an effect on the truth-value of the sentence uttered, there is no reason to think that the changes in time of utterance there will be relevant to the truth of the sentence uttered.

2.1.5 Ellipsis

Some expressions are elliptical. For example, in (8) one part of the full sentence that A is expressing in his first turn is uttered on A's second turn:

- 8) A: John bought a new one.
B: What?
A: ...a new one.

With changes in the part of the sentence that A does not utter on his second turn but does on his first, there can be changes in whether what A says in his second turn, if truth-evaluable, is true or false. There would then be different sentences to be analysed in each case. Perhaps (1) and (2) are elliptical for longer sentences where which longer sentence is being ellipsed changes from story to story. For example, (1) might be elliptical for both (1') and (1'') and (2) might be elliptical for both (2') and (2''):

- 1') That's a plastic duck.

1") That's a live duck.

2") The leaves are painted green.

2") The leaves are naturally green.

The different utterances would then not be utterances of the same sentence and would warrant different semantic analyses. The trouble with this as an account of Travis cases is that it appears to be possible to construct novel Travis cases for each de-ellipsed sentence. For instance:

Story 6: Jonny's pet duck has died. Its brain has been replaced with an electronic device that maintains the body and has a remote control. But the duck Jonny knew has departed. Jonny's friend, Alice, doesn't know this. She asks, "how's your duck Jonny? Still alive?" Jonny replies, "nah, he died last week. He's not alive (anymore)." What Jonny says is true.

Story 7: Jonny's duck is now part of a dance troupe operated at the park by the gardener. One day Jonny's duck is moving about the pond, surrounded by inanimate plastic ducks. Frank and Ted are wondering whether to feed the ducks. Ted objects, "They're all plastic." Frank responds, "No. There, look. That's a live duck" he says pointing to Jonny's former duck. Frank throws the bread, Jonny's duck bites it, chews it, swallows it, and goes on to digest it. What Frank says is true.

Insofar as the phenomenon is a general one the elliptical proposal does not eliminate the fluctuation in truth-value.

2.1.6 Vagueness

Some sentences are vague in the following sense. Lay down a colour chart so there is a spectrum from the clearly red to the clearly orange. Some shades will not be such that one cannot provide a clear answer to the question, is that red? So, one finds that one's intuition on the matter may fluctuate from occasion to occasion on which one considers the matter. One might think that there are such things as vague words. Vague words are such that there are items for which it is unclear whether the word is satisfied (or etc.) by them, thereby eliciting the kind of phenomenon just described. Whatever proposal is given for vagueness could be given for Travis cases. There are various ways one might do this: e.g. introduce a

third truth-value or propose a stubborn ignorance of just what are ducks and what are green things. However, the intuitive judgements of speakers about the truth of (1) and (2) in the different stories are systematic unlike the judgements yielded in examples of vagueness modelled on the kind of thought experiment I just outlined. If the shifts arose because of vagueness we should expect there to be no system to the shifts. But system is exactly what is found.⁷⁶ So, it seems unlikely that the shifts in intuitive truth-value arise because of vagueness in this sense (no matter how one analysed the vagueness).

2.1.7 What is said versus what is implicated

We could distinguish between something's being strictly speaking true or strictly speaking false, on the one hand, and on the other hand, a looser use of the words "true" and "false" which is strictly speaking an *error* in the use of those words.⁷⁷ The proposed analysis is that although we may say that the decoy duck is a duck, *strictly* speaking it was not a duck. But we speakers of English let this error slide. We allowed ourselves to use the word "true" loosely. We took something that was not strictly speaking sufficient for the sentence to be true to be something that was. In the usual terms that this is put we mistakenly took something which was only *implicated* by the sentences to be something which was *said* by the sentences. Suppose we accepted this description of the sentences' behaviour in the different stories. Then when we formulate a semantic analysis of these sentences, we could ignore the intuitions of truth and falsehood there elicited, for they would not record what we should be examining: viz. what was said. We could then stay with our original analysis in model M₂.

To evaluate this proposal we need a principled way to distinguish between intuitions of truth/falsehood which are relevant to a semantic analysis (viz. what is said) and those which are not. How is it that we are to distinguish between what was said and what was implicated in a principled manner? Grice proposed several tests to distinguish between what is said and what is implicated.⁷⁸ The one that is relevant to us is cancellability because with it we can argue that the difference in truth-value of our sentences in the different stories is not relevant to a semantic

⁷⁶ For an experimental confirmation see (Hansen and Chemla manuscript).

⁷⁷ Cf. (Berg 2002)

⁷⁸ For a summary of them see (Grice 1975 [1989], pp.39-40) and (Grice 1978 [1989], pp.43-44).

analysis of the sentence. Suppose someone utters a sentence S. Suppose there is a candidate for what someone said to be so, S'. If one can cogently say, "S, but I did not mean to imply S'," then, so goes the test, S' is never part of what one says in uttering S. Whether or not S' is so is not relevant to the truth of what one says in saying S.⁷⁹ Now consider (1). We can apply this cancellability test to it. One can say, "That's a duck, by which I do not mean a plastic decoy." So then the commitment to the object being a plastic decoy is *cancelable*. So then what would have been said to be so in story 2, contrary to initial intuition, is that there is a duck, but not in the sense of a decoy duck. So strictly speaking, the object's being a decoy duck is not relevant to the truth of (1) and hence what was said would not, strictly speaking, be true, as said of a plastic object.

With the distinction between what is said and what is implicated thus clarified, there are two reasons to doubt the effectiveness of this as an analysis which blocks the use of Travis cases to argue against the hypothesis: the second is more potent than the first. The first is that one can postulate all the tests one likes for technical locutions of one's choosing. But in making such a proposal, nothing has been said as against an alternative understanding of such cancellability. On this alternative understanding S' is part of what one said to be so in uttering "S" but what one said in uttering "S" varies from utterance to utterance. That is, although we have been presented with an alternative interpretation that is not consistent with a view according to which the hypothesis is false, no reason has been given to accept this alternative. The test is just a way of presenting the alternative view. It does not set up the basis upon which we can discover which view is correct. But the proposal does stymie proceedings. For if the Gricean proposal is given credence, and if one is to argue for the hypothesis from Travis cases, then one now has to show that there is something wrong with Grice's way of using those words ("true" and "false"). One difficulty with Grice's use of those words is that intuition goes against it (if the intuitions exhibited in Travis cases are accepted). He requires us to use the words "true" and "false" as applied to sentences in ways which intuitively we do not use them. However, the sharpness of this response is blunted if we acknowledge that speakers' intuitions are not sacrosanct. Perhaps this is a case in which they should not be respected, the defender of the Gricean proposal might say. If a dispute

⁷⁹ (Grice 1978 [1989], p.44)

breaks out at this point, how one is then to arbitrate the disagreement (about when speakers' intuitions are to be respected) is not something I know how to do.

The second cause for doubt is that there *is* good reason not to engage in such a displacement of ordinary talk (our ordinary assignments of truth and falsity to sentences). If Travis cases are as general as they seem to be, then if one consistently applies this 'test,' one will end up classifying practically everything one *appeared* to be committed to being so in saying 'S' as not *strictly speaking* part of what one is committed to in saying 'S,' no matter what 'S' happens to be. But then it will be entirely unclear what could make true or false what one said. Why? Bernard Williams puts the point curtly like so:

...if a speaker is confronted with information which clearly proves that what he said was false, and he admits the truth of the information, and will not accept that what he said was false, and has nothing at all to say on how that can be so, this can cast doubt on what he meant, because it may be unclear by now what he would count as making his statement true or false. (Williams 2004, pp.69-70)

We have already seen that one can cancel the commitment one appeared to be making in story 2, viz. that the item in question was a decoy duck. Now consider the use of (1) in story 1. We can equally well say, "that's a duck, by which I don't mean it's a live warm blooded bird." But then what would seem to make false the use of (1) in story 1, does not in fact do so. So then, given the free use of the Gricean test, neither commitment that it appeared we were making in using (1) was one we were in fact making. If we continue in this way, it quickly becomes doubtful that anything is being strictly speaking said to be so, if Grice's criterion for that is to be applied to sentences from which Travis cases can be constructed. This is good reason not to adopt this analysis of Travis cases: it commits us to hollowing out our commitments when saying that something is so, to the point of vacuity. After the axe has been wielded, in the case of (1), we would be left able to say that someone had said that that's a duck. But what is that to commit oneself to? Nothing, apparently, as Williams indicates. But then one cannot be engaging in an examination of substantial truth-conditions of the uses of the sentence in question. For *that* one needs it to be determinate what would count as being a duck in a sense that renders the sentence, (1), true or false. But this goes missing after the

axe has been swung. What one would be left with would indeed be compatible with a project of identifying only logico-syntactic features of words of a language. But in pursuing that project one would no longer be doing anything in defence of the hypothesis.

2.2 Non-standard semantic analyses

The standard explanations of how a sentence can vary its truth-value across its instances do not apply to changes in truth-value exhibited in the stories of Travis cases. Non-standard semantic analyses use existing formal semantic ideas but apply them in non-standard ways. There are four examples that we will discuss: indexical predicates; hidden arguments; non-standard parameters; and ways of assigning values to parameters.

2.2.1 Indexicals

Rothschild and Segal present a proposal within a truth-theoretic framework. But there is no problem representing the main thrust in our own toy semantics. In Chapter I, the valuation function in a model assigned indexicals elements of the domain D *relative to a context* c . Rothschild and Segal propose that the same be done with all predicates. Since predicates have intensions as their semantic values and not extensions, the valuation function should assign functions from contexts to intensions. For instance, in M_1 “sleeps” was assigned the following intension:

$$F(\text{sleeps})(w_n, i_n) =$$

	i_1	i_2	i_3
w_1	{a, b}	{a,b}	{}
w_2	{a}	{a}	{}
w_3	{}	{}	{}

On the current proposal, we would assign it a function from contexts to intensions. For instance:

$$F(\text{sleeps}) = f(c) =$$

$c_1,$	i_1	i_2	i_3
w_1	$\{a, b\}$	$\{a, b\}$	$\{\}$
w_2	$\{a\}$	$\{a\}$	$\{\}$
w_3	$\{\}$	$\{\}$	$\{\}$
$c_2,$	i_1	i_2	i_3
w_1	$\{a\}$	$\{a\}$	$\{\}$
w_2	$\{b\}$	$\{b\}$	$\{\}$
w_3	$\{\}$	$\{\}$	$\{\}$

This semantic analysis of “is green,” allows there to be changes in truth-value for our sentence (2) which are accounted for within the semantic analysis by the changes in the values of c .

However, as will turn out to be a theme in these non-standard analyses, nothing specific is proposed about how the value of c is determined on given uses of the sentence. That is important. It means that we cannot test this semantic analysis by attempting to construct stories in which c is held fixed to see whether we can still elicit a change in truth-value from our sentences (1) and (2). For this reason, this proposed analysis does not show that the hypothesis is true. Rothschild and Segal are forthright about absconding responsibility:

Ultimately how we succeed in communicating with indexical expressions may not be a question which formal semantics itself has much to say about. This is not to say we think that an account of this is either unimportant or easy to give. But it is not part of semantic theory. Our semantic proposal (like many other treatments of demonstratives and indexicals) isolates this complex area from formal semantics. (Rothschild and Segal 2009, p.475)

Their proposal introduces us to an element of a semantic analysis that could be changing across the different stories in a Travis case. But because the proposal is

only partly defined, we cannot test whether this really saves the hypothesis from Travis cases.

2.2.2 Hidden arguments

A similar proposal is that there is an aphonic variable within the logical form of certain, perhaps all, predicates and that this variable changes its value from story to story. Szabo works out this proposal, to some degree.⁸⁰ An idiosyncrasy of Szabo's approach is his claim to have shown that only adjectives exhibit the phenomenon. This is incorrect. What he actually did was provide two example sentences for which he did not think Travis cases could be constructed. One of those two examples was the sentence, "The number is even." Supposing that this is used to speak of no more than a number, rather than a number of particular items, let's grant him this. No one is seriously supposing otherwise here. The second sentence was, "The ring is gold" said of a ring made of pure gold. Such a sentence, Szabo claims, "expresses a truth, no matter what the speaker thinks, or what the purpose of her statement is."⁸¹

I think this is false. I offer two counterexamples.⁸² First, suppose a large supply of a metal with the same chemical structure as pure gold was found on another planet. This metal is however deemed less valuable than the metal with the same chemical structure found on earth. The abundance of the stuff from the other planet makes it a cheap gift in comparison to objects made of pure gold from earth. Imagine the distraught scenes that might follow if it were discovered by a lover that the ring she had been given was not made of Earthian gold but rather from the easily available and dead-cheap foreign gold. If he said "the ring is gold," she may well deem this false.⁸³ Another example. It is possible to apply a laser to metal (including gold) and thereby change the metal's colour without changing its

⁸⁰ (Szabo 2001)

⁸¹ (Szabo 2001, p.125)

⁸² For a fourth see (Longworth forthcoming)

⁸³ It is not as though there are no real cases much like this. In some parts of Asia it is possible to purchase suits, for instance, which are made by those working in factories that mass produce, say, Gucci suits, from the same materials, but which are sold outside the factories themselves, and so not via the company whose name they bear. Does such an item of clothing fall within the extension of 'Gucci suit'? There's room for debate. For some purposes one might say, "yes, what a bargain," in others one might say, "no, it's a counterfeit."

chemical structure.⁸⁴ Now suppose that one goes to a pawn shop and tries selling the ring. Once the process had been explained, one could truly say, “The ring is gold.” But suppose that one is using the ring as a prop in a film where a gold ring has been requested. Then one may speak falsely in saying, “The ring is gold.” These are my examples. Travis considers some others of his own.⁸⁵ Because such examples are possible, I do not accept Szabo’s contention that Travis cases cannot be constructed for “the ring is gold” said of a ring made of pure gold.

As for Szabo’s contention that the phenomenon is limited to adjectives (a contention that he simply never defends in his paper), there are counterexamples to that as well.⁸⁶ For instance, suppose John lost his legs years ago and now has automated legs which take him to where he wants to go with the aid of GPS guidance system. The resulting movement works but is not the natural glide of the average pedestrian. Suppose that John’s mother visits John at the hospital. John gets up from his bed and moves his legs in a motion that propels him across the room. She says, “Wow. John is walking. He is actually walking.” What she says is true. Suppose at the same time, a student and her supervisor walk past. She is in need of subjects for her research project. The project examines a cellular process that occurs in one’s legs when walking. The supervisor says, “what about him, he’s walking.” They inspect John more closely only to realise that, he has no legs: he can’t *walk*. What the supervisor said was false.

Leaving this idiosyncrasy aside, Szabo’s proposal in general is that adjectives are incomplete in that they have free variables in their proper semantic analysis. Szabo gives us several illustrations, one of which is for “green.” He proposes that “green”’s proper semantic analysis has two free variables: one for a comparison class, C, and one for a place at which the greenness is supposed to be, P. This can be written as:

$$9) \lambda C \lambda P (\text{is green } (C)(P))$$

Intuitively, if (9) gave the logical form of “is green” then it would require supplementing with values for the variables C and P before becoming a V_i , upon

⁸⁴ <http://www.sciencedaily.com/releases/2008/02/080201090845.htm>. I am assuming that this process does not change the *chemical* structure of the metals to which it is applied. But if the process does do that, suppose it didn’t.

⁸⁵ (Travis 1975, p.71)

⁸⁶ (Szabo 2001, p.138)

which, semantic analysis like that in our toy semantics could be pursued. To handle (9) properly I would need to introduce type theory and lambda conversion into our toy semantics which would require taking a different approach to the semantic rules to that which I took in Chapter I. Though this would not change anything essential, the extra complexity that would result is not warranted by only this example. So I am not going to introduce such things. But to give some indication of the idea behind (9), (9) is not dissimilar from proposing that “green” always has aphonic prepositional phrases associated with it. It is as though “is green” is always short for “is green for the P of a C” where the P is a part of the object referred to by the NP to which “is green” is concatenated and the C is a class of things with which the referent of the NP is being compared.

The notion of a comparison class is broad. In principle, any collection of items could form a comparison class: the class the members of which are that to which a given item is to be compared for relative greenness, for instance. Nothing is said about how the proper comparison class for a given use of an adjective is to be determined. For this reason, we cannot test Szabo’s proposal to see whether something of its shape really does eliminate unaccounted-for changes in truth-value.

What about the *location* variable? Similar problems arise for that too. Consider objects which when rotated very fast, appear a certain colour, for instance green, because the colours on their parts blend to human sight. Now consider two scenarios. In the first, we are trying to find the best ride at the fair, the one with the green cylinders. One might point at the spinning objects that are in fact painted yellow and blue, and say, “there are the green one’s, it’s over there.” What one says is true. But in another scenario one is packing up the fair-rides. Someone asks for the green cylinders. You point to a spinning blue and yellow painted cylinder and say, “there’s one. It’s green.” What you say is false even though you speak of the same object as before where the only difference is that before it was moving and now it is not. Thus Travis cases could be constructed for the colour of items on their surface because there is a question as to what is to count as being on the surface. Because Travis cases can be constructed for matters of location nothing is really gained, so far as specificity is concerned, by adding this parameter alongside the comparison class parameter. So as with Rothschild and Segal, Szabo’s proposal is too unspecific to test. Szabo needs to show Travis cases could not be constructed for sentences given his semantic analysis. He does not do that.

2.2.3 Non-standard parameters

Both of the previous two non-standard semantic analyses were proposals to the effect that the extension of an expression changes with a context just as has been proposed happens with indexicals. With Rothschild and Segal predicates themselves were treated as indexicals; with Szabo there were invisible appendages that behave like indexicals. A different variety of non-standard semantic analysis focuses on the parameters in the analysis, like *w* and *i*.

MacFarlane has proposed that there might be non-standard parameters which we could add to *w*, *i*, and *c*.⁸⁷ For instance, we could add one for ways of being green, call it *b*. Its values would presumably be drawn from a set, *B*. The valuation function *F* in a model would assign the expression, “are green” an intension that takes as one of its arguments, as well as *w* and *i*, *b*. *b* is different from *w* and *i* in that it can change its value with the circumstances in which “is green” is spoken without there being any change in the values of *w* and *i*. In this way we have an element of the semantic analysis of “The leaves are green” which changes across the different stories of a Travis case. So we can maintain that there are long regularities in the substantial truth-conditions of sentences as described by a formal semantics.

Precisely the same can be said for this proposal as has been said for the previous two. Nothing specific has been said about how to individuate ways of being green and how the value of *b* is determined across different occasions on which “are green” is instanced. Insofar as that is the case, there is no way to go about trying to test whether this proposal has indeed eliminated Travis cases and hence shown that the hypothesis does not face trouble from them.

2.2.4 Ways of assigning values to parameters

A similar but distinct proposal to MacFarlane’s can be found in Predelli’s work. There are two versions of Predelli’s proposal. In Predelli’s *paper*, he distinguishes between the possible world parameter *w* and a worldly condition which corresponds to a value for that parameter.⁸⁸ He proposes that factors can influence which worldly condition corresponds to which value of the possible world parameter.

⁸⁷ (MacFarlane 2007)

⁸⁸ (Predelli 2005a)

Variation in which worldly condition was so for which value of w would mean that there could be variation in the truth-value of a sentence across different utterances of it despite no change in any element of the analysis. So suppose we have $I([_s [_{NP} \text{Ralph}] [_{\text{Pred}} \text{sleeps}]]])^{M,w,i,c,g}$ where in our model we have, $F(\text{sleeps})\langle w_1, i_1 \rangle = \{a,b\}$ and $F(\text{Ralph})\langle w_1, i_1 \rangle = a$. Recall that semantic rule (c) is:

- c. $I([_s \text{ NP Pred}])^{M,w,i,c,g} = 1$ iff $I(\text{NP})^{M,w,i,c,g} \in I(\text{Pred})^{M,w,i,c,g}$ and 0 otherwise.

So then, applying the relevant rules we get: $I([_s [_{NP} \text{Ralph}] [_{\text{Pred}} \text{sleeps}]]])^{M,w,i,c,g} = 1$. But there is the question: how does the world have to be for w to have the value w_1 ? Predelli's proposal is that *this* (whatever it is) could shift across uses of the sentence and if it shifted then there could be changes in whether, the world being as it is, w has the value w_1 . If it changed, then there could be changes in the truth-value of "Ralph sleeps" across its instances without changes in w or i . Here there are no new parameters, just the same old w , i , and c . But what counts as it being w_1 or w_2 or etc. changes with the circumstances of instancing "are green."

This might look like acceptance of the hypothesis' falsity. Being an opponent of the hypothesis, and being in want of a comrade, I wish Predelli had stopped here. But he does not. He proposes that there are functions from worldly conditions to parameter values which he calls "applications." Let us run through an illustration. One application might be, application 1:

$\langle \text{worldly condition 1, parameter value } w_1 \rangle$

$\langle \text{worldly condition 3, parameter value } w_3 \rangle$

Whereas another application might be application 2:

$\langle \text{worldly condition 3, parameter value } w_1 \rangle$

$\langle \text{worldly condition 1, parameter value } w_2 \rangle$

Suppose application 1 obtains and worldly condition 1 obtains. Then, $I([_s [_{NP} \text{Ralph}] [_{\text{Pred}} \text{sleeps}]]])^{M,w_1,i,c,g} = 1$. But if application 2 obtains and world condition 1 obtains then $I([_s [_{NP} \text{Ralph}] [_{\text{Pred}} \text{sleeps}]]])^{M,w_1,i,c,g} = 0$.

Predelli proposes that further factors determine which application is in play when an expression is uttered. Whether how *applications* are determined (what worldly

conditions have to obtain for, for instance, application 1 one to obtain) is subject to the same kind of variation as is the value of w , is a matter on which Predelli stays equivocal. But if there is not supposed to be that variation, then, Predelli is protecting the hypothesis against Travis cases with his proposal.

Things are slightly but significantly different in Predelli's *book*. There, talk of applications has been abandoned entirely.⁸⁹ Instead Predelli proposes that Travis cases show only that whatever intension is proposed for a given expression, e.g. "green," there must be different values for parameter w for each story in a Travis case.⁹⁰ This proposal is little different from MacFarlane's. Whereas MacFarlane introduces additional parameters, Predelli is more economical.

How do such proposals stand as accounts of the truth-value shift in Travis cases? If Predelli's paper is read as not proposing that the factors determining the right application are canonical, then the proposal there is not in opposition to OS. If it is read as proposing canonical factors, then it is. The proposal of the book does appear to be an attempt to shore up the hypothesis. In each case, insofar as he is, as with the previous two non-standard analyses, there is not enough specificity given to how either the applications, or the values of the possible world parameter, are determined on given uses of sentences.

The spirit in which Predelli offers both his proposals should be noted. Each is presented just to show that it can be done. But he also presents a minimal view of the job description of formal semantics, and as Predelli is himself aware, on that view there is no *need* to make the proposals Predelli makes.

2.3 Stalemate

This leaves us at a stalemate: the dispute over the hypothesis cannot be resolved by appealing to the data likely to be considered for the proposals made. Given the incompleteness of these proposals, linguistic data cannot be used to argue for or against the hypothesis because we do not know what data would count for or against the hypothesis. We need more specificity but we are not likely to get it: the sentiment of those attempting to defend the hypothesis is that specificity's provision is not their responsibility. So long as this is so, the stalemate is chronic.

⁸⁹ It was dropped because readers of the paper falsely thought that an application was a further parameter. (Predelli, p.c.)

⁹⁰ (Predelli 2005, p.148)

2.3.1 Bad methodology: the accusation

One way out of the stalemate is to identify rotten methodology in the work of a disputant: those philosophers who are making the unspecific proposals are engaging in bad methodology. The data as so far surveyed do not support the hypothesis. So there is no reason to even have proposed the hypothesis in the first place because in doing that one can be doing little more than guessing. Instead of guessing what is to be found in the behaviour of words, we should engage in a patient botany of linguistic data and build our hypotheses from the findings of such fieldwork. This sentiment is common in Travis' writings. It is the basis upon which the whole of his 1975 is written, itself a documentation of fieldwork conducted in accordance with a given methodology:

...begin by formulating a set of systematic descriptions of what we say, reflecting as well as possible our intuitions about what we say. On this approach, the search for primary units of analysis, the adoption of criteria of meaning and the search for necessary and sufficient conditions are all to be put off until we are quite sure we understand what it is that we do say. (Travis 1975, p.x).

This (or a similar) methodological principle is espoused in subsequent publications.⁹¹ Travis does not discuss the proposals of Szabo, Rothschild and Segal, MacFarlane, or Predelli. But when discussing their antecedents (viz. Lewis and Kaplan),⁹² Travis dismisses what is common to them as an attempt to *guess* at what might be the case before simply having a good look, i.e. producing hypotheses which wildly overreach what data there is to support them. If that really is a mistake on their part, then we have a way out of the stalemate: their schematic proposals should not be argued with but instead simply ignored.

2.3.2 Bad methodology: a false accusation

Is it true that to formulate a hypothesis and then attempt to collect data which operate in accordance with it, a sin of inquiry? No. As post-1960 developments in the philosophy of science would suggest, good Popperians are not good inquirers. It is a mainstay of inquiry that while observations made may be counterexamples or

⁹¹ See (Travis 1978, p.401), (Travis 1981, pp.1-2), and (Travis 2008, p.1)

⁹² They are antecedents with respect to their attempt to shore up the hypothesis by means of non-standard semantic analyses.

counterevidence to particular hypotheses about a subject matter, they may also be artefacts of the way in which the data were collected. For example, sociologist Michael Lynch reports in the write-up of his 2 year study of work done in a laboratory, the phenomenon of “negative artifacts”: things which are expected to be there, but which are not found. The possibility that an experiment, the implementation of theory, was done badly, rather than that the theory implemented was found to be conclusively false, is always present:

When the experiment failed to work, the question remained: “Did we do it correctly? Is there anything we could have done that would have made it work?” (Lynch 1985, p.114)

Because of this, it is not unreasonable to expect scientists to pursue a hypothesis despite what *might* be evidence that it is false, because that “evidence” might also arise from defective methodology. Fugelsang et al. report upon how scientists at “three leading molecular biology laboratories at a prominent US university” reacted to results that do not conform to their predictions. They write:

...scientists developed causal explanations for the inconsistent findings. These causal explanations could be classified into one of two types: (1) methodological or (2) theoretical. The predominant strategy, which occurred for 196 of the 223 inconsistent findings, was to blame the method used in the experiment...

The finding that 12% (27 out of 223) of initial observations of inconsistent findings resulted in theory modification is indicative of a conservative strategy for theory change. Post laboratory meeting interviews suggest that the use of this strategy is based largely on the researchers’ knowledge of the high base rate of experimental methodological error. (Fugelsang 2004, p.88)

Again, given the similarity in appearance of falsity and bad implementation, it is not unreasonable that scientists do this. We find in the actions of scientists (who certainly form *one* exemplar of the good inquirer) good reason to believe that it is not bad methodology to “run with” *the* hypothesis despite the falsification of some versions of it. To object that this is, in itself, a bad method is a bad line of criticism. It presupposes a dubious conception of the role of hypotheses in well-conducted empirical inquiry. So the stalemate cannot be resolved so easily.

3 Wittgenstein 1989

Travis presents an argument that attacks what he there calls a classical semantics.⁹³ If the argument were successful it would establish that the hypothesis is false. In what follows I will summarise the argument as perspicuously and accurately as I can before considering whether it establishes that the hypothesis is false.

3.1 Preliminaries

Travis presents the argument as about semantic items. We are concerned only with one variety of semantic item viz. linguistic expressions. So I will couch the argument in these more familiar terms. A linguistic expression can have various properties. These include but are not exhausted by: meaning A, saying A to be B, calling A (a) B, saying what is true, saying what would be true of situation A, being true/false, being true of A.⁹⁴ Travis calls these “semantic properties.” One might think that there are some semantic properties such that for an expression that has them, given “the other facts of that occasion” of some instancing of the expression, the semantic properties that the expression has are determined on that occasion.⁹⁵ Travis calls semantic properties that do this determining “*critical* semantic properties.”

We can recast this in terms familiar from our toy semantics. If there are long regularities in the substantial truth conditions of a sentence (as modelled by a formal semantics for the sentence), then the expressions that constitute the sentence have intensions (or more generally, semantic values) associated with them for every instance of them for a certain duration of time (roughly, the lifetime of a speaker). Intensions thus understood are such that, combined with “other facts of that occasion” on which the expressions are used, they determine some of what Travis is calling “semantic properties.” We can boil the particular semantic properties that are determined down to: the referents of referring expressions, the satisfiers of predicates, and the truth-conditions of a sentence (all understood *substantially*); or generally, to the extensions of linguistic expressions. Hence, the proposal that there are long regularities in the substantial truth-conditions

⁹³ See (Travis 1989). The strategy of the book and the broad structure of the argument are outlined on (Travis 1989, p.xi, pp.1-2, p.75)

⁹⁴ (Travis 1989, pp.3-4)

⁹⁵ (Travis 1989, p.10)

(satisfiers and referents) of sentences (predicates and referring expressions) *is* to propose that linguistic expressions have what Travis calls a “critical semantics”: properties (i.e. intensions) which determine, for any instance of the linguistic expressions (at least within the span of a long longevity), what their referents, satisfiers, or truth-conditions (i.e. extensions) are. For ease of reference let us use the word “meaning” to speak of semantic properties of linguistic expressions which are invariant for a long longevity.⁹⁶

The target of the book is a view that is broader than the view that there are critical semantic properties of linguistic expressions. What is at issue is this. Let “O” be a variable which ranges over ways of having semantics. This could be over different times, or places, or whatever other factor one might care to introduce. This could even include circumstances in which an expression is used in some way but not by its author.⁹⁷ Travis’ target is the view that once O is held constant, there cannot be changes in the semantic properties of an expression. On such a view we say that the semantics of the expression is *classical*. Notice that if a semantics is critical then it is classical. This is because then one would be proposing that if one fixes some semantic properties of an expression, and some further facts, then the expression must have certain other semantic properties. Hence, one is supposing that there is some way of having a semantics, viz. being such that the expression has given semantic properties while certain further facts obtain, such that, it is not possible to get the expression to shift in those semantic properties not yet held fixed. So if there is not a classical semantics, there will not be a critical semantics either.⁹⁸ Finally, a semantic property of an expression is to be called “s-use sensitive” if on different occasions, O, (in the very broad sense just introduced), there are changes in the semantics of the expression.⁹⁹

⁹⁶ Thus put, there is a genuine question as to whether intensions are part of the meaning of linguistic expressions.

⁹⁷ For examples of this kind of variation in semantic properties see (Travis 1989, pp.31-32). For more recent discussion of this kind of possibility see (MacFarlane manuscript).

⁹⁸ See (Travis 1989, p.21)

⁹⁹ The expression is first introduced on (Travis 1989, pp.18-19). The version I state here appears on (Travis 1989, p.31).

3.2 The public access principle: a model of the constitution of semantic fact

Travis introduces a model of how semantic properties are constituted. For something to be a semantic property (e.g. extension or intension), P, of an expression, just is for “it to be so that a reasonable (informed) judge would take it to have P. Similarly, it [the expression] counts as having P just where a reasonable judge would so react to it.”¹⁰⁰ So according to this model, the properties that linguistic expressions have are had because judges (which will include speakers) treat them as having them. That in itself appears to be an almost uncontroversial idea. Suppose some kids are playing football in the street. Two lampposts become goalposts. We cannot separate that they are goalposts from the kids’ treatment of the lampposts as goalposts for the purposes of their game. There is nothing about the lampposts which makes them goalposts independently of the way the kids are then treating the lampposts. Similarly, on the model, that “red” means red cannot be separated from the treatment given “red” by (reasonable and informed) speakers of English.

There are two enrichments of this model that need noting. First, a reasonable judge’s reactions can be wrong.¹⁰¹ It is not the case that the semantic facts are just what *some* particular reasonable judge or judges take them to be. The properties of expressions depend for being possessed, “on the reactions an indefinite number and an indefinite collection of judges would have to other facts, in situations in which those facts might count as obtaining or not.”¹⁰² The “indefinite collection” means that for an expression to have a property, its having or not having it must be something there is that one does not have to be any particular individual to recognise.¹⁰³ In our football example, it is not the case that something counts as a goalpost just because some particular individual or circle of individuals reckons it is. Every player can be mistaken about this. This condition on an expression’s having a given property is called the *public access principle*: an expression’s having the semantic properties it has just is for an indefinite number of reasonable,

¹⁰⁰ (Travis 1989, p.48)

¹⁰¹ (Travis 1989, pp.45-47)

¹⁰² (Travis 1989, p.58, see also pp.74-75)

¹⁰³ The model is therefore incompatible with those who adopt a community response to Wittgenstein’s rule following considerations. That response has it that expressions have the semantic properties they do because a particular group of people take them to be so. That is not the current idea.

informed, judges to react to it as having such. Second, if reasonable judges' reactions to the expression matter to what properties it has in the way described by this model, then whether the judges doubt that the expression has a given property will be relevant to whether it has that property. Travis distinguishes between two varieties of doubt: a real doubt and a conceivable doubt.¹⁰⁴ One might conceive of various facts that could obtain, which, if they were to obtain, would show that one is not doing as one appears to be doing right now. You might *suppose* that it is night instead of day. That is a matter of what one can conceive. But that is a very different matter from finding it difficult to believe (so doubting) that it is day. The reactions of reasonable judges, whether they take some expression to have some semantic property, will depend upon what they can doubt in the real sense, *not* in the conceivable sense.

I will henceforth speak of the (enriched) public access principle rather than the model and by this I will mean the trio of claims just outlined: the judge/speaker dependence of semantic properties; that the judges/speakers in question are not any particular judges or speakers; and that the reaction of judges/speakers depend in part on what they can doubt in the real sense.

The significance of meeting the conditions laid down by the enriched public access principle is this. For an expression that can have semantic properties, it is always possible that one reasonable and informed judge take it to possess a given semantic property while another reasonable and informed judge takes the same expression to not possess the semantic property, where neither judge has made a mistake. At least, if there is nothing more to the expressions having the two properties than the judgements of reasonable and informed judges, this is not ruled out.¹⁰⁵ Semantic properties of expressions constituted in this way are in principle open to such variation. Hence, expressions with semantic properties so constituted are in principle s-use sensitive because this is all that is required to be that. Hence, they are not classical. Hence, for expressions and semantic properties that conform to this model, there are no critical semantic properties.

¹⁰⁴ (Travis 1989, pp.49-50)

¹⁰⁵ (Travis 1989, pp.65-66, p.339)

3.3 The ontological argument

The ontological argument has the conclusion that there are no semantic facts.¹⁰⁶ Travis proposes that the model of the constitution of semantic facts described by the enriched public access principle renders the ontological argument unsound. That is presented as reason to adopt the model. But the model is inconsistent with classical semantics. Hence the classical view is incorrect.

Here is the ontological argument. Suppose that a given expression, e.g. “gronch”, has the property of being true of some item, V. The word alone does not make this so. There must be some other facts (we will call them *basing facts*) which make that purported fact so, or in virtue of which it is so. Call this *the demand*.¹⁰⁷ Two principles are then adopted:

Principle 1: if it is conceivable that for a given fact F that it should hold while it is not the case that “gronch” is true of V, then, F does not meet the demand.

Principle 2: if there are no facts F that meet the demand, then it is not a fact that “gronch” is true of V.

The first principle is a familiar kind of principle. For instance, one might argue that if it is conceivable that there could be a fully functioning creature which has no gustatory sensations, then gustatory sensations are not constituted by anything about the fully functioning creature. There are obvious problems with this kind of principle which I will turn to when evaluating this argument. For the sake of argument, let those problems slide. The second principle is not (too) controversial, if all the rest is granted.

The trouble is then supposed to be that it *is* always conceivable that the base fact obtain while the expression does not possess the semantic property in question:

...for the sorts of facts we normally recognize to obtain or not, [there is no] withstanding the requirement imposed by [the ontological argument] on other facts: that their obtaining leaves it inconceivable that the fact in question should fail to obtain. (Travis 1989, p.344)

¹⁰⁶ See (Travis 1989, pp.343-344)

¹⁰⁷ (Travis 1989, p.343, p.360)

If this can be granted then, given principle 2, and contrary to our supposition, “gronch” does not have the property of being true of V. If there is nothing special about “gronch” and the semantic property of being made true by V, then we can generalise to all expressions and semantic properties. If so, then the ontological argument if sound has the conclusion that there are no facts of the sort wherein expressions have semantic properties.

However, if the enriched public access principle is granted then the ontological argument is unsound. The ontological argument rests upon the assumption that if there are *conceivable* circumstances in which some basing fact obtains and the pertinent semantic fact does not, then the candidate basing fact is not really a basing fact. But suppose the enriched public access principle is true. Then semantic facts are constituted by the reactions of reasonable judges. *These* reactions will be constrained by “genuine” doubts about the semantic properties of expressions, and hence, a merely conceivable circumstance in which the basing fact obtains without the expression having the semantic property will be irrelevant to whether, as things actually are, the candidate basing fact is indeed a basing fact of the semantic property’s possession by the expression.¹⁰⁸ But then principle 1 would be false and the ontological argument would be unsound. That a derivation of an ontological falsehood about semantic properties is blocked by the enriched public access principle is a reason in favour of accepting that principle. We have here a kind of transcendental argument for the principle.

How does this bear upon the hypothesis? If we adopt the hypothesis, then the meaning of an expression includes an intension. An intension determines what the referents, satisfiers, or truth-conditions are of any instance of a linguistic expression. If the conclusion of Travis’ argument is granted, then there is reason to doubt that the meaning of an expression (that which is constant to any instance of it) could include an intension. Given it, we should adopt the enriched public access principle. But then whether a given expression has, for instance, the semantic property being true, will be s-use sensitive. But then an intension cannot be part of the meaning of an expression. Hence, there cannot be long regularities in the substantial truth-conditions of expressions, for that just is for an intension, substantially understood, to be part of the meaning of an expression.

¹⁰⁸ (Travis 1989, pp.346-347)

There are more twists and turns in Travis' argument than I have presented. There are two that I will mention but not discuss. Firstly, rather than employing the enriched public access principle *per se*, a special case is employed as applied to fact stating discourse.¹⁰⁹ This special case can be stated as:

...semantic facts, such as the facts as to whether some predicate, W, says what is true of some item, V, are what they would most reasonably be taken to be, on the supposition that there are semantic facts at all. (Travis 1989, p.346)

The distinction between merely conceivable and genuine doubts has its analogue in a contrast between what can happen so far as *conceivable* circumstances go, and, what would *most reasonably* be taken to be so. In the same way genuine doubts are more discriminating than conceivable doubts, so too what it is reasonable to take to be so is more discriminating than what it is conceivable to take as being so. I have nonetheless presented the reply to the ontological argument in terms of doubts because that is how the enriched public access principle is described when introduced in the book. I am supposing the difference is not significant.

Secondly, there is a lengthy discussion in which Travis attempts to show that the resources available to one who accepts the enriched public access principle for resisting the ontological argument are not available to someone who does not accept the enriched public access principle. This discussion divides into two parts. The first considers one who attempts to draw the mere/genuine doubt distinction without appealing to what a reasonable judge would take to be so.¹¹⁰ It is argued that the distinction cannot be made without recourse to how a reasonable judge would react. The second considers whether one could resist the ontological argument without invoking that distinction.¹¹¹ It is argued that there is no way to do this. The criticisms I raise do not concern whether there need be reasonable judges' judgements involved in blocking the ontological argument. For this reason we do not need to engage with these rather complex discussions.

¹⁰⁹ (Travis 1989, pp.304-305)

¹¹⁰ (Travis 1989, pp.345-372)

¹¹¹ (Travis 1989, pp.372-281)

3.4 Discussion of the argument

I do not think Travis' argument is satisfactory as used against the hypothesis. I will first pose an unsuccessful complaint against principle 1. I will then turn to a fatal objection to the argument (as employed to argue against the hypothesis).

First, the complaint. The ontological argument requires that the demand be met by citing facts for which it is not conceivable that they obtain without the semantic fact obtaining. Should we be using conceivability as a measure of what is so? Certainly for many kinds of thing it is doubtful that we should. That I can conceive of my lamp lighting a room without any electricity does not mean that my lamp lights rooms without electricity. Similarly, one might argue, that I can conceive of a linguistic expression being satisfied by a given item does not mean that it is satisfied by that item. If so, then the ontological argument breaks down without appeal to the enriched public access principle. However, when considering what the satisfiers are of a given expression, "red" say, what more does one have to go on than how one can conceive of using that expression (correctly)? Not much, is a reasonable answer. This is the kind of thing we should be thinking of when examining what the satisfiers are of "gronch." But then we can reply to the complaint by saying that conceivability has a special role in deciding properties of linguistic expressions in a way that it lacks in deciding the properties of other things (like my lamp, for instance). There is obviously room for a debate here. To what extent are speakers' intuitions about how a word can be used a way to study words? But I do not want to enter that. All that I want to establish is that the *prima facie* bite of this complaint is lost when we consider the kinds of item to which the demand and principle 1 are being applied. One might worry that the enriched public access principle is now being used to defend principle 1. If it was, adoption of it would be part of what generates the sceptical conclusion, so a thoroughgoing *rejection* of that principle would also be a way to avoid the conclusion of the ontological argument. That may be so. However, two points. Firstly, insofar as a role of the conceivable (in some sense) is reasonable for the semantic properties of linguistic expressions, this move is unreasonable. Secondly, if we are already committed to that much then what is left open in the current defence of principle 1 is how this "conceivability" is to be understood. It is *that* for which adoption or rejection of the enriched public access principle is consequential.

Now for what I think is a more problematic objection. Does the s-use sensitivity of linguistic expressions follow from a view of the constitution of semantic fact in which reasonable judges' judgements are so central? That depends upon whether the involvement of such judgements entails s-use sensitivity. The definition of classical semantics concerns whether it is *possible* for there to be variation in the semantic properties of a linguistic expression across occasions (in the broad sense introduced earlier). The involvement of the reactions of reasonable (informed) judges in the constitution of the semantic properties of linguistic expressions might well commit us to it being possible that there is this sort of variation but that commits us to only the *possibility* of s-use sensitivity. Although it is true that if a linguistic expression has its semantic properties s-use sensitively then it does not have them classically, it is not true that if the semantic properties do not have them classically then they do have them s-use sensitively. So even if Travis' transcendental argument is sound, it does not establish the conclusion that the semantic properties of linguistic expressions are s-use sensitive. Hence, it does not show that semantic properties are not critical. Hence, it does not show that the hypothesis is false.

Consider an analogy. There are such things as people capable of detecting various features of the manufacturing history of a wine by tasting the wine. They have come to learn of certain relations between how the wine tastes to them and the history of the substance they taste. They may well use certain expressions in a way which reflects the regularity there has come to be in the judgements of the history of these substances. If so, then we have a case in which there is a role for the good judgement of the wine tasters in whether, for instance, certain uses of expressions are to be classified as true, or false, but where there is a regularity in these judgements, one that does not fluctuate with the occasion. There is a role for judgement in the classification of expressions employed in describing such objects. But I can see no reason to think this requires us, as a consequence, to deny that the semantics of linguistic expressions are critical. Hence it does not force us to deny that they exhibit a long regularity in their substantial truth-conditions which could be documented within a theory that took the form of a formal semantics.

A subsidiary point is this. It is variation in the reactions of reasonable informed judges that is supposed to introduce the possibility of variation in semantic properties of linguistic expressions across occasions. But that sounds much like a

kind of variation we would have expected anyway; what we could call “the noise in a convention.” Suppose there is a convention that everyone walk on a given side of the pavement when walking north, and the other, when walking south. Everyone would expect there to be some delinquent walkers. Similarly, in the use of expressions one would expect similar such fluctuations. If so, the variation Travis argues is possible is not controversial. It is known of and thought damaging. For that reason, it would not be a good ally in arguing that the semantic properties of linguistic expressions “*should* be S-use sensitive.”¹¹²

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Travis offers a third argument which may prove useful in attacking the hypothesis.¹¹³ The argument targets what he calls a *Fregean* view of the meaning of predicates. “Fregean” is just a label for a view one might have about the meaning of predicates, with consequences for the truth-conditions of sentences. The focus on predicates as opposed to other expressions is incidental: in chapter 2 of this book Travis argues for a similar thesis for referring NPs, though he does this with a different argument which I will not discuss here. I will assume in this section that the hypothesis has been abandoned for referring NPs. As before, by “meaning” I shall mean a constant feature of a predicate across different instances of it. The question is whether such a thing determines the predicate’s extension across all those instances. After presenting the argument I will argue that it does not support the falsity of the hypothesis.

4.1 Preliminaries

A target of this book is a view of predicates according to which a predicate’s meaning is a function from objects in certain conditions to truth-values. The meaning of a predicate, on the targeted view, is supposed to be something such that given an object in a given condition, the meaning makes it fully determinate whether a sentence formed using that predicate and an expression that refers to that object is true or false.¹¹⁴

Why are the functions functions from objects-in-certain-conditions rather than simply objects? Objects are not such that they necessarily have a given property or

¹¹² (Travis 1989, p.30)

¹¹³ (Travis 2006)

¹¹⁴ (Travis 2006, pp.36-37, pp.119-122)

such that they necessarily do not have a given property. Objects when in some conditions are such that they have a given property and when in other conditions are such that they do not have that property. So if the function that is the meaning of a predicate is a particular function from objects to truth values, then, so far as that object is concerned, the predicate “is blue” could not be the English “is blue”; it would be satisfied only by objects which are necessarily blue. Hence, instead of the arguments to these functions being objects, they are objects’ conditions; “conditions,” that is, in a certain sense. Compare, a condition on your entry to the country is that you are not a terrorist, with, what condition was he in when you found him? The former notion of condition is akin to “requirement.” The latter is not. The notion of condition that Travis employs here is the latter, which he glosses as a thing’s being as it is.¹¹⁵ Objects can be the objects they are while changing condition. An object might be in one condition on Tuesday and another on Wednesday. Instead of having objects as arguments, the function has objects-in-conditions as arguments. Thus the fact that an object can change the condition it is in without changing what object it is can be registered by the meaning of the predicate, on this view, the function. The relativisation to days is merely illustrative. These objects-in-conditions are to be such that it is not possible for a predicate to have more than one truth-value when concatenated with an NP that has that object-in-given-condition as its referent.¹¹⁶ Let us call this view of predicates the Fregean view.¹¹⁷

If the Fregean view of the meaning of predicates were to hold of natural language predicates then there would be a long regularity in the substantial extensions of predicates: the hypothesis would be true. In principle one could construct a theory in the form of a formal semantics which describes this regularity. In our toy formal semantics we represented this using intensions. Intensions for predicates are functions from objects in given conditions (viz. values for *w* and *i* and whatever else), to truth-values. So to suppose that a formal semantic analysis describes a long regularity in the substantial extension of a predicate could be understood as adoption of the Fregean view of the meaning of predicates. If so, then an argument

¹¹⁵ (Travis 2006, pp.36-37)

¹¹⁶ (Travis 2006, p.36)

¹¹⁷ (Travis 2006, pp.36-37).

against the Fregean view would be an argument against the hypothesis as it applies to predicates.¹¹⁸

4.2 The argument

The structure of the argument is this: a task is described which uttered words must enable if they are to be (in our terms, substantially) truth-evaluable. The Fregean view is committed to a particular way of carrying out this task. Travis describes a constraint on the capacities of speakers and understanders of uttered words. Given this constraint, if the meanings of predicates were Fregean then speakers and understanders of uttered words could not perform the task in question. But we can perform this task. Hence the Fregean view cannot be the correct account of how uttered words enable the task to be carried out. Telegraphically put, that is the argument. Now let us tread through it more carefully.

Consider a simple sentence of a language which includes a referring NP and a predicate. To utter that sentence is to say a particular item has or does not have a given property.¹¹⁹ The item in question can be: (a) as is required for the sentence uttered to be true; (b) as is required for the sentence uttered to be false; (c) as is required for the sentence's truth or falsity to be left unsettled. It is not the case that only the object being *precisely* as it is is sufficient for the item to fall into whichever category (a)-(c) it actually falls into. There is an open ended range of differences to how the world is which would not change how the object is categorised. With each difference in the world, we can ask of the object: is it being as it is *now* sufficient for the object to be (a)? (or (b)? or (c)?). For instance, suppose I pour some hot water into a mug in which is located a roibos teabag. Gesturing at the mug, Patrick utters, "this is red." Gesturing at the mug before he pours, I can ask whether this is things being as Patrick said them to be. Then again as he pours. Then again as he moves over to the kitchen counter. Then again had an ant

¹¹⁸ This argument can be reapplied to referring NPs if one thinks they have intensions. Travis does not discuss such a view. He (2006, chapter 2) discusses the view that there is a general specification of what makes something the referent of a singular term. He poses a dilemma for such a view, escape from which (he thinks) requires rejection of the hypothesis for singular terms. I will not discuss that dilemma. However, if one were to attempt to provide a description of a long regularity of the extension(s) of a referring NP whose referents were determined by a general criterion (e.g. in circumstance c1, the criterion is satisfied by o1; in circumstance c2, the criterion is satisfied by o2...etc.), then one would have something that is not distinguishable from an intension. The current argument could be applied to such a description.

¹¹⁹ (Travis 2006, pp.129-130)

moved toward the cup. Then again, had another mug stood beside this one. And so on without end. Sometimes the correct answer will be different from what it was, sometimes not.

Travis speaks of answering such questions as *solving problems of translation* from the claim into particular cases. Given the world is at it is, is the uttered sentence true, false, or neither?¹²⁰ The uttered sentence will require determinate answers to such questions if it is to have substantial truth conditions. For this reason the translations cannot be arbitrary.

Different patterns of translation for a given sentence are possible. Such differences just are different truth-conditions for the uttered sentence. Let us say that a given pattern of translations is an *understanding* of the uttered sentence.¹²¹ This much sets up what has to be in place for the uttered sentence to say something whose truth is determinately decided by how the world is. The predicate of the sentence contributes a pattern of translation for the object referred to by the referring expression to which the predicate is concatenated to make the sentence that was uttered. This is so no matter what explanation of the meaning of a predicate one has.

The Fregean view of predicate meaning is an account of how predicates deliver a determinate pattern of translation. It is an account of the phenomenon just described. Notice two things about how it does this. First, the predicate's meaning is a "synopsis of the solutions to indefinitely many problems; a synopsis from which all those solutions are recoverable," where here the problems to be solved are translations in the already described sense.¹²² So for the uttered words to have different truth-conditions is for there to be different functions that are the predicate's meaning. Second, truth-conditions can be understood and meant by speakers and hearers of sentences (uttered). On the Fregean view, meaning and understanding one truth-condition for an uttered sentence rather than another truth-condition is to stand in a relation to a function of the Fregean kind.¹²³

¹²⁰ (Travis 2006, pp.122-123, p.129)

¹²¹ (Travis 2006, p.129)

¹²² (Travis 2006, p.124)

¹²³ Though Travis talks only of meaning one's words to have a given understanding, what is meant is that they have substantial truth-conditions, as we can see from how the notion of an understanding was introduced. Cf. (Travis 2006, p.119)

Travis proposes that there is a limitation on the thoughts one (so speakers/meaners and understanders) can have. Here he alludes back to a much earlier stage of the book. In an earlier chapter Travis discussed singular thoughts: thoughts whose truth depends upon the condition of some item in particular, rather than just any item which satisfies a general condition:

There is a kind of thought that hitches its fate to some given individual in this way: according to the thought, some individual is a certain way; no matter how things were, only such-and-such individual's being that way (or not) would make, or would have made, things as thus thought...The individual that bears this burden is the one the thought is, in the singular way, about. (Travis 2006, p.42)

Travis claims that singular thoughts are such that one has to be in some sense acquainted with that which it is about. All that is meant by the word "acquainted" is no more than that one has a capacity to make one's thought depend upon a given individual "in the singular way."¹²⁴ So to have a singular thought one must be capable of making one's thought depend for its truth upon something in particular, and not just upon whatever satisfies a general condition.

To mean or understand words with a given understanding (read: pattern of translations to particular cases, or, substantial truth-conditions), a meaner or understander must be able to distinguish different understandings of the words. If the understandings of the words are representations which include functions of the Fregean sort then, to distinguish different understandings words might bear, the meaner or understander must be able to distinguish such functions. But such functions relate objects in particular conditions to truth-values. To mean or understand such a function will require a capacity to have an array of singular thoughts, viz. thoughts of the form, "this is how the uttered words said things to be" where the singular element, "this," will, for different argument-value pairs of the function identify different objects-in-given-conditions.

For instance, if Sid says, "Pia, your shoes are under the bed," then if these uttered words have determinate substantial truth-conditions, and if they have such in the Fregean way, then the predicate "are under the bed" will have a function whose

¹²⁴ (Travis 2006, e.g. p.72)

arguments are all the objects-in-given-conditions of which translation problems can be raised, and whose values are solutions to those problems. The arguments to that function will consist of objects-in-given-conditions: this is as things were said to be; this isn't; this is as things were said not to be; etc. To mean or understand such a thing the meaner or understander must be able to have thoughts which relate objects-in-particular-conditions to truth-values. These thoughts will be singular.

But now the limitation on the capacity of meaners and understanders bites. To have a singular thought one must be acquainted with that which the thought is about. But for many objects-in-given-conditions, meaners and understanders will not be acquainted with those objects. But many different functions will be distinguished only by the arguments for which meaners and understanders cannot have the appropriate singular thoughts. For instance, if Pia stands outside the closed bedroom door, then she is not acquainted with the shoes in the condition they then are in when she enters the bedroom. Therefore she cannot think the singular thoughts she needs to be able to think if, as per the Fregean view, she is to mean or understand one function rather than any other. But then, if predicate meaning were of the Fregean kind, meaners and understanders could not mean or understand the truth-conditions of uttered sentences. But they can in fact. So the Fregean view cannot be correct.¹²⁵

4.3 Discussion of the argument

The main objection will be exactly as it was for the 1989 argument. To begin though, let us examine some more tempting complaints. A first objection is that acquaintance can be got through testimony itself. If that were so, then why could an understander not simultaneously become acquainted with the object as she is spoken to? This is a *non-sequitur*. The trouble lies with acquaintance with an object in various conditions, not with an object *simpliciter*. For all the different questions that can be raised, "is *this* things being as they were said to be?" there is a new thing with which to be acquainted. For most such things, neither the speaker nor the hearer will be acquainted with them.

A variation on this objection is deny that a meaner or understander is not acquainted with that which the argument requires us to suppose they are not

¹²⁵ This is summarised at (Travis 2006, pp.137-139)

acquainted. To be acquainted with something is to be in a position to make a thought of one's depend upon the condition of that something. Why is it not possible for Pia to make a thought of hers which we might express by saying that she thinks that the shoes are under the bed, depend upon how things are in the bedroom? Travis' glosses on acquaintance are not of a kind that immediately lend themselves to a denial of this. In fact, Travis refuses to make any general claims about with what someone is acquainted because such is deemed an occasion-sensitive matter.¹²⁶ The current objection is not with that position *per se*. It is with the consequence that it's just not clear that Pia is not acquainted with the condition of the shoes. It is not as though acquaintance is a capacity to report how the shoes are. It is a capacity to make one's thoughts depend upon the condition of the shoes in the singular way. A response to this objection might be to indicate that there must be many things with which one cannot at some time, make one's thoughts depend in the singular way: viz. those which do not yet exist. Travis mentions several times the case in which prior to the existence of Frege, no one could have singular thoughts about him. A reasonable supposition is that that which a singular thought is about must exist. Conditions-of-objects do not exist prior to the point at which objects are in such conditions. So there will be many, by this criterion, singular thoughts, relevant to meaning or understanding a Fregean predicate, which one cannot have. Hence, if existence is a prerequisite for singular thought, then the argument cannot be faulted on the current lines.

Secondly, we have had to suppose that there are situations such that A understands the truth-conditions of an uttered sentence *and* wherein those truth-conditions are distinct from other truth-conditions the uttered sentence could have had, that diverge for objects-in-conditions with which A is not acquainted. We could bite this bullet: of course, for circumstances with which A is not acquainted, A cannot at that time distinguish between different claims that might have been made. But that does not matter so long as in any given moment, A understands whether things being as they are then requires the truth or falsity of the sentence. The trouble with this response is that, insofar as it is not just an example of the third objection, it forfeits the Fregean view and so is not really opposed to the conclusion of the argument. It forfeits the Fregean view because it leaves a role for something like good judgement in recognising what the truth-conditions are of an

¹²⁶ (Travis 2006, pp.60-70)

uttered sentence. But it is precisely the point of the Fregean view of predicate meaning that there be no place for such good judgement.

Thirdly, one might object that there are unnecessary anti-realist commitments being pushed upon the Fregean. Here we should be careful. What is true is that there is a manifestability constraint on what a good candidate for the meaning of a predicate could be. The argument involves moves from meaners and understanders not being capable of recognising the truth-conditions of uttered sentences on the Fregean model to the Fregean model being a bad model of the meaning of predicates in such uttered sentences. Such a move is fine, I think, provided it really is true (which it is) that meaners and understanders can mean and understand the truth-conditions of uttered sentences. However, what is *not* being proposed is that the meaning of predicates must therefore be in some way curtailed to fall within the epistemic capacities of the meaners and understanders. On the contrary, it is being supposed that such a move is unacceptable, and because of this, the argument gets the conclusion against the Fregean view. One *could* maintain the Fregean view but curtail the meaning of a predicate so that it falls within the epistemic reach of meaners and understanders. Such a move would warrant the title “anti-realism.” This is perhaps a way to put a Dummettian response to this kind of predicament. But Travis is unwilling to accept such a position for much the same reason that McDowell does not accept such a position.¹²⁷ What you would have left would not really be substantial truth-conditions at all. For this would be to commit to no determinate verdict for the vast majority of translation problems to particular cases. That is to make no commitment at all in meaning such and such by one’s words, or understanding such and such by someone’s words. The view here is in a sense then decidedly *not* anti-realist, despite its respect for the epistemic limitations of meaners and understanders.

The most forceful objection to the hope that we have here an argument against the hypothesis takes the following simple form. The conclusion Travis draws from the argument is that the Fregean view is false. The alternative he places in its stead is that we exercise a sensibility which is not exhaustively characterisable as a Fregean function would. The trouble is that there is a disparity between, on the one hand, whether or not meaners and understanders are acquainted with items in

¹²⁷ (McDowell 1984)

various conditions, and on the other hand, whether there is any pattern to be documented in the satisfiers of predicates as used by speakers of a linguistic community. Just because such a pattern, were there one, could not be explained by appealing solely to that which meaners and understanders are acquainted, does not mean there cannot be such a regularity. To conclude that the hypothesis is false, on this sort of basis, we need a further assumption to the effect that reliance on a sensibility in meaning and understanding sentences entails the kind of variation that would falsify the hypothesis. Travis does not provide any support for such an assumption. As with the 1989 argument, there is also a corollary: insofar as one does think that the involvement of a sensibility in meaning and understanding sentences requires an absence of such a regularity, there is the danger that this variation arises from the “noise in a convention” and so is not something that is even unexpected.

5 Conclusion

Travis does not offer a compelling argument against the hypothesis. I am sympathetic to the argument from cases. The versatility of linguistic expressions poses a compelling challenge to those who think there is any pattern to be found in the variation of extension there exhibited. The trouble is that such an argument cannot pose a threat to hypotheses that are too incomplete to test and as I have argued (*pace* Travis) the mere fact that these are hypotheses are not yet supported by evidence is not in itself a reason to avoid making them. As for the Wittgensteinian arguments, they may well have had a task set for them other than that of bulldozing the hypothesis. So perhaps it is unreasonable of me to have expected them to show that the hypothesis is false. Nonetheless, I thought it worth investigating whether they could do the job and I have presented the results of that investigation. They each have the conclusion, insofar as they are sound, that there is an inherent involvement of sensibility in one’s operation of linguistic expressions. But no reason has been given for thinking that the involvement of sensibility excludes there being documentable regularities of the pertinent sort.

CHAPTER III

Hempel and the empiricist construal of theories and their application

1 Introduction

In the next chapter I want to show that OS has a purpose (or more specifically, that it is a consequence of a purpose being fulfilled). If one were to remove it from natural language the loss would be as serious as would be the loss of phonology or grammar. To do this we will proceed in two stages. In the first stage, which is pursued in the current chapter, I will present a proposal from a late paper by Carl Hempel in which he rejected a view of theories and their use to make predictions. According to the view, theories contain their own application criteria. Hempel gave reason to doubt this.¹²⁸ I will describe the phenomenon that led Hempel to this view: confounding factors. The second stage, the next chapter, will aim to do two things. Firstly, it will bolster Hempel's discussion. Hempel relies on a handful of examples to drive his charge against his target. He will not be successful without covering some further ground. Secondly, the moral of Hempel's discussion will be applied to natural language more generally: natural language expressions do not have their own application criteria. This is for a reason which precludes their having their own intension or extension. In this way I hope to provide reason to deny the hypothesis. More on that later.

¹²⁸ (Hempel 1988)

2 Hempel on the empiricist construal of theories and their application

Hempel attacked a view of theories and their application that he called “the empiricist construal.” According to it, theories determine how they apply to particular cases; that is, whether or not such and such counts as falling within the extension of an expression within the theory.¹²⁹

Hempel means by a theory, *T*, the following: $\langle C, I \rangle$.¹³⁰ The first component, *C*, consists of expressions and “basic laws.” The expressions can be used to speak of certain entities and processes which conform to the basic laws. The terms and principles of *C* allow the formulation of arguments that allow one to derive conclusions from premises. The second component, *I*, will “link” the terms and principles of *C* to “the empirical phenomena to which” *C* is to be applied. The *I*

¹²⁹ Cartwright (1999, p.184) attacks the same view of theories. She calls it “the vending machine view.” Just as a vending machine is already assembled to provide a determinate output of beverage for a determinate input of currency, so too, a theory is already assembled for generating determinate predictions given determinate observations. Cartwright denies that scientific theories do any such thing. She (1999, chapter 2) explains her alternative view of what scientific theories do by appeal to G. E. Lessing’s discussion of fables and morals. Just as morals are “filled out” by the particularities of fables so too theories are “filled out” by appropriately constructed descriptions of a particular situation, a model of that situation. Without such a thing, a theory provides no predictions whatsoever. For instance, imagine a \$1,000 note falling in Saint Stephen’s Square in Vienna. Suppose we ask an expert in fluid mechanics to predict where it will land. The problem with attempting to employ such theories here is that, as described, such theories are inapplicable to the situation. The expert “should immediately complain that the problem is ill defined. What exactly is the bill like: is it folded or flat? Straight down the middle? Or ...? is it crisp or crumpled? How long versus how wide? And so forth and so forth.” (Cartwright 1999, p.27) The Newtonian example below will illustrate this same point. Furthermore, analogous to Hempel’s proviso condition (to be introduced below) we find Cartwright’s requirement that when a theory is applied one has to find or construct a “nomological machine”: “a fixed (enough) arrangement of components, or factors, with stable (enough) capacities that in the right sort of stable (enough) environment will, with repeated operation, give rise to the kind of regular behaviour that we represent in our scientific laws.” (Cartwright 1999, p.50) If there is a reason I have focused on Hempel over Cartwright it is that there are elements of Cartwright’s exposition for which I have misgivings. For example, she talks of elements of theories corresponding to “capacities” and she attempts to describe these. This is an unhelpful venture into analytic metaphysics. Cartwright appears to think this will help with the kinds of trouble Hempel introduces for the empiricist construal/vending machine view. See for example (Cartwright and Efstathiou forthcoming). Hempel’s discussion is more frugal than this and so preferable. But I cannot deny that Cartwright (1999) has been a strong influence on the ideas of this chapter and the next. It is the similarity between a Cartwrightian nomological machine and a Wittgensteinian language game which I found particularly striking. Any need for the former is, I think, justification for expecting the latter to be the proper unit of analysis of substantial truth-conditions. This should become more fully apparent in the next chapter (albeit in terms of the jargon introduced in the present chapter).

¹³⁰ (Hempel 1988, pp.147-148)

component provides application criteria for the expressions from the *C* component.¹³¹ Hempel argues that theories include no *I* component that successfully determines how the *C* expressions are to be applied:

The foregoing considerations show in particular that when a theory contains interpretative sentences...they cannot be regarded as unequivocal complete or partial criteria of applicability for theoretical expressions. (Hempel 1988, p.151)¹³²

He thinks this because scientific theories are always subject to the threat that (confounding) factors to which the theory is insensitive undermine the validity of inferences the theory licences. Hempel claims, in effect, that once law-statements in theories have been interpreted so that predictions can be made with them, they become non-monotonic. They are no different (in this respect) from conditionals like, “if there are very dark clouds, then it will rain.” If you add “and there is a lot of pollution causing there to be grey clouds,” then one might reject the conditional as inapplicable in this case: you risk making an inference to a falsehood. According to Hempel, the *I* component is something that is incorporated into *T* upon a particular application of *C*.¹³³

Hempel’s “foregoing considerations” consist of (brief) examinations of exemplary scientific theories upon application. We will look at some examples of theories which when applied in certain ways in certain circumstances give bad predictions. The first example will be Hempel’s own: a theory of magnetism. The second will be a variant on another of Hempel’s own: Newtonian mechanics. The third will be drawn from the ethnographic work of Michael Lynch on the classification of brain cells. All I aim to do in this chapter is describe these examples so that we have

¹³¹ (Hempel 1988, p.149). Although the terms of *C* are interpreted with a second vocabulary, that of *I*, the relation that the interpretative part of *T* is supposed to identify is that between the symbols of *C* and extra-symbolic things, viz. that for which the theory is to account; that which is described by means of the vocabulary *C* via *I*.

¹³² I have omitted (the ‘...’) reference here to Carnapian reduction sentences. But since Hempel’s target is more general than this, the omission is not important. See (Hempel 1988, p.148). I have also omitted the hedge, “usually.” It implies Hempel was willing to allow that there are application criteria which can be unequivocal and non-partial etc. What these are supposed to be is entirely unclear from his paper because he considers no exceptions. What is clear is that the phenomenon he describes must be pervasive enough to make us question the truth of the empiricist construal.

¹³³ See the discussion of provisoes below and (Hempel 1988, p.154).

firmly in mind the phenomenon of confounding factors that can afflict reasoning about empirical states of affairs.

2.1 Example (1): a simple theory of magnetism

In this first example, *C* includes terms and principles of an elementary theory of magnetism. *C* contains expressions “magnet” “north pole” and “south pole” and the following principles:

P1) The parts of a magnet are magnets.

P2) If *a* is a magnet and *b* is a magnet then the opposite poles of *a* and *b* will attract one another and the like poles will repel one another.

I consists of “some operational criteria” for the terms of *C*.¹³⁴ In particular, suppose:

P3) Something’s being a metal bar to which iron filings are clinging is our criterion for falling within the extension of “magnet.”

P4) Two items’ being two magnets hung by threads the same distance from the ground but close to one another and which form a line is our criterion for being two magnets that attract their opposite poles and repel their like poles.

This *C* and *I* constitute our *T*. We can use this *T* as follows. We can take a metal bar to which iron filings cling and classify that as within the extension of “magnet” by P3. We can then use P1 to infer that if we break these metal bars in two we will get two further magnets. This then allows us to employ P2. But what should we expect of magnets whose like poles repel and whose opposite poles attract? For that we turn to P4. Thus from *T* we can predict that if we thread up these metal bars so that they are the same distance from the ground but close to one another, then they will form a line.

Hempel raises the following (rather obvious) problem for the view that an inference made using *C* thus applied is valid: any link between these sentences can be undermined by the presence of further factors. A confounding factor, if present, is such that that which one is attempting to predict depends upon it yet whether it is

¹³⁴ (Hempel 1988, p.148)

so is not something that forms part of the premises of the argument. Confounding factors cut loose a conclusion from its premises.

Should one infer that the metal bars will form a line given P1, P2, and P3? In some circumstances it would be unwise:

The theory [of magnetism] clearly allows for the possibility that two bar magnets, suspended by fine threads close to each other at the same level, will not arrange themselves in a straight line; for example, if a strong magnetic field of suitable direction should be present in addition, then the bars would orient themselves so as to be parallel to each other; similarly, a strong air current would foil the prediction, and so forth...The theory of magnetism does not guarantee the absence of such disturbing factors. (Hempel 1988, p.150)

Similarly, suppose one observes iron filings stick to the metal bar and so one is licensed by P3 to call it a “magnet.” But suppose there is an adhesive on the bar, or the filings themselves are magnetised, or etc. In such cases, one’s prediction may not obtain. Similarly again, even if there is a bona fide magnet, if you break it in two you will not necessarily witness the metal bars forming a line when suspended above the ground. For instance, “if the breaking of the magnet takes place at a high temperature, the pieces may become demagnetized.”¹³⁵ Though for all this, in some other circumstances one can make accurate predictions with this *T*.

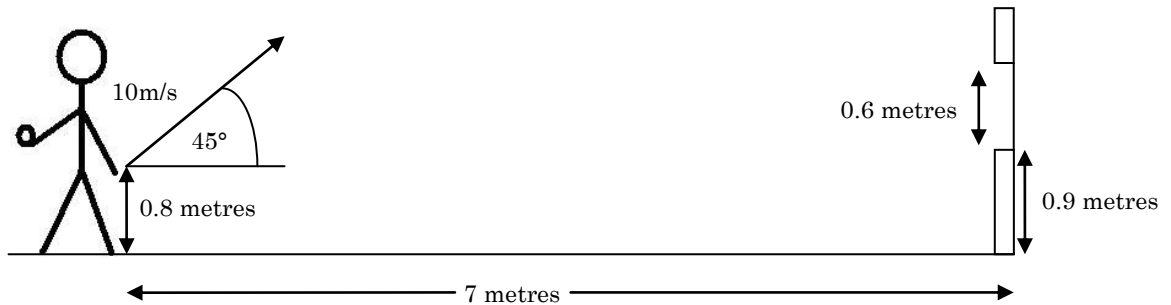
2.2 Example (2): Newtonian mechanics

A second example to which Hempel appeals is the use of Newton’s mechanics to predict the motions of the planets.¹³⁶ To describe this in any detail would be complex (for a non-physicist or non-mathematician) and Hempel does not even do so himself. So I am going to consider another situation in which the same point can be made in a little more detail without too great complexity. Do not worry if you are not familiar with the mechanics. The point being made will become clear enough.

¹³⁵ (Hempel 1988, p.151)

¹³⁶ (Hempel 1988, p.151)

Consider the following type of scenario. A man throws a ball in the direction of a window. We want to know whether the ball will hit the window. Suppose that we take some measurements and produce the following description of the situation:



The man throws the ball from a height of 0.8m in the direction of the window at an angle of 45° to the horizontal at an initial speed of 10m/s. The window is 0.9m off the ground and 0.6m in height itself. We need to overlay a coordinate system onto the situation so that we can produce an equation which describes certain properties of the ball relative to some point of origin. The point of origin will be the floor below the location from which the man throws the ball. That will be point 0 for both horizontal and vertical dimensions, where the latter extends out to the right. So the starting position of the ball is 0.8m along the vertical axis and 0m along the horizontal axis. Let us express all this in terms of Hempel's empiricist construal, a theory $T = \langle C, I \rangle$. We need some C and some I .

The C will include Newton's second law: the force applied to an object is equivalent to the mass, m , of the object multiplied by the acceleration, a , of the object. Suppose that the only force acting on the ball as it travels toward the window is gravity pulling it downward. Suppose further that the ball's size will not significantly affect its trajectory. C will also include an equation which allows us to derive the height of the ball when it has travelled 7 metres along the horizontal axis. This equation is: $r = ut + \frac{1}{2}at^2$ where r is the distance travelled, t is the time taken, u is the initial velocity, and a is the acceleration. So we have some expressions (r , t , u , a , and m) and two principles ($r = ut + \frac{1}{2}at^2$ and $F=ma$) as elements of C .

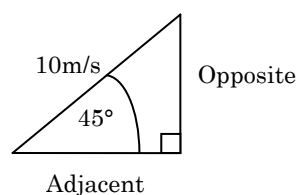
The I will include the following. Given Newton's second law, and our two suppositions, the acceleration of the ball will be: $F = 1 * -9.8 = -9.8$ along the vertical axis. This value for the force applied to the ball as it is in motion is based

upon observations made by others of the force that a particular object exerts on objects near to it; namely, the Earth. From these observations, and given our two suppositions, we arrive at the number -9.8 . Had the gravitational pull of the Earth been different, and recorded, then this number would have been different. The number can be found in a number of ways. One way to find it is to measure the acceleration of a ball rolling down a plane inclined to the horizontal and to employ some trigonometry. The acceleration can be measured by calculating the speed the ball reaches at varying distances from the base of the plane. The speed will be different depending upon the distance. But the rate at which the speed increases as the ball rolls down the plane will be invariant across the different distances covered. This rate will be the gravitational pull the Earth exerts on objects close to its surface. If this is where we get our number from, then we can say that the criterion for applying a in this case will be a number generated in this way for the planet one is on.

Suppose the distances were measured by means of a tape measure, hand, eye, and pencil.

The speed was calculated, we may suppose, by training the man to throw balls at particular speeds. Suppose he was trained by telling him, by means of a speedometer, how fast his throws were. He kept adjusting his throws until he could throw a ball at a speed dictated in advance of the throw. That is how the figure 10m/s was obtained for this throw: the man had learnt to throw a ball at that speed. We can suppose something similar for the angle at which the man throws the ball.

However, we need to calculate the *velocity* of the ball for both the horizontal and vertical axes so that we can get a value for u to feed into our equation. We can calculate this from the numbers we already have by means of trigonometry. Consider the following:



In a right angled triangle: $\sin \theta = \text{opposite/hypotenuse}$ and $\cos \theta = \text{adjacent/hypotenuse}$. So in the current case: $\text{opposite} = 10\sin 45$ and $\text{adjacent} = 10\cos 45$. That gives us the starting velocity, u , of the ball in component vector form. We can write it, treating i as a marker of the x-axis and j as a marker of the y-axis: $u = 10\sin 45i + 10\cos 45j$.

Filling in the values of our equation ($r = ut + \frac{1}{2}at^2$) that we have for u and a , we get:

$$r = (10\sin 45i + 10\cos 45j)t + \frac{1}{2}(-9.8j)t^2$$

$$r = 10\sin 45it + 10\cos 45jt + \frac{1}{2}(-9.8j)t^2$$

If we ignore the vertical axis component (the j vector) in the equation, we can see that for every metre travelled along the horizontal axis, the time taken is $10\sin 45$ seconds. So if $r = 7$ metres, we get:

$$7 = 10\sin 45t$$

$$t = 0.9899 \text{ seconds}$$

This is how long it takes for the ball to travel 7 metres along the horizontal axis. We can now use the same equation to calculate how high up the y-axis the ball will be when 7 metres along the horizontal axis from where it started. We do this by, this time, ignoring the horizontal axis component (the i vector) and feeding in our value for t :

$$r = 10\cos 45(0.9899) + \frac{1}{2}(-9.8)(0.9899)^2$$

$$r = 2.198 \text{ metres}$$

2.198 metres is the height we predict the ball will reach when it has travelled 7 metres along the horizontal axis, i.e. to the right of the man. The highest point of the window (1.5 metres) is far less than the height the ball is predicted reach. So we can predict that the ball will not hit the window.

We can now ask whether our prediction will be correct. The answer is "it depends." If there was a strong wind between the man and the window, then our calculation of the force applied to the ball would lead to an inaccurate prediction. We would have to add the force supplied by the wind to get a value for a that would enable us

to get an accurate prediction, where the wind force was calculated in an acceptable manner. Similarly, if the ball had within it magnetic elements and there were a powerful electromagnet nearby, we would have to factor in that force. Other more complex additional factors are also possible. Suppose for instance that there were helium in the ball, or the ball underwent particularly high air resistance or that a nearby dog was on the lookout and ready to catch the ball. In each case we would have to modify how we make our prediction and sometimes this will include changing how we obtain values for the variables in our equation.

Similar issues arise for the ways in which the other numbers were obtained. For instance, if the length of the tape measure that came to be 7 metres when measuring the length between the window and the man was not perpendicular to the 0.8 metres measured between the ground and the starting point of the ball, then we will get a distorted prediction because our prediction is based on the assumption that those two measurements fall along the perpendicular axes of a coordinate system that we have, as it were, overlaid onto the scene before us. We would either have to correct for the absence of the right angle or else place constraints on how the tape measure is to be employed to get the measurement (e.g. with aid of a set square). Either way we would modify how we were obtaining the value for r that we use in a step in our calculations.

So as in the magnetism example we have a particular $T = \langle C, I \rangle$. But although this T will allow us to make good predictions in some circumstances, in others it will not. In other circumstances we would have to modify the application criteria of the expressions in C (of the variables in our equations) if we wanted to use those equations to make an accurate prediction. The reason why we would have to modify the application criteria is that confounding factors would be present that would undermine the prediction.

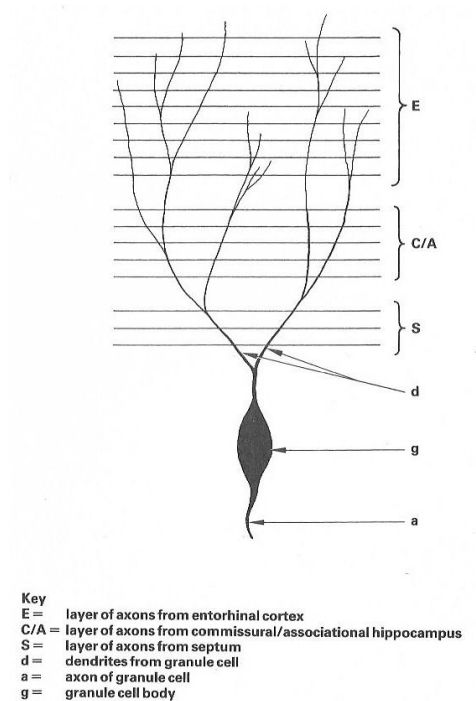
2.3 Example (3): Lynch on intact and degenerate axons

I do not know of detailed work on the usage of terms to categorise items in physics. So we will not examine such a thing for terms like “force” or “magnet.” But I do know of detailed work on the usage of terms in biology. I want to present a third illustration of the phenomenon to which Hempel draws our attention. This is a more extended example being as it is a real example of the application of terms to particular items. The example is drawn from Michael Lynch’s ethnography of

scientists working in a biological laboratory in the 1970s.¹³⁷ The discussion falls into four sections. The first describes the work done by the scientists in question. The second describes the expression we will focus on and introduces a principle within which the expression figures. This principle can be used to make predictions. The third describes various confounding factors with which scientists had to deal in employing the expression and the principle. The fourth is a summary.

2.3.1 Looking for cell regeneration

The scientists were studying brain plasticity: the capacity of the brain to recover a function lost as a result of lesion. The research question of the investigators was: how does this happen? They pursued this question by examining micrographs of brains taken at different intervals since being lesioned so they could watch for cell regeneration. The investigators chose the hippocampus as the part of the brain to lesion and of which to take pictures. They did so because they knew that the organisation of cells in the hippocampus “facilitated comparative studies which were not possible in other brain areas.”¹³⁸ We can see why this is by examining a diagram of the cell layout in the hippocampus:



¹³⁷ (Lynch 1985)

¹³⁸ (Lynch 1985, pp.28-29)

A neuron has a cell body.¹³⁹ There are tentacles extending out from the cell on one side and a single tentacle extending out from the other side. The former are called dendrites. These allow electrical signals *into* the cell. The latter is called an axon which allows electrical signals *out from* the cell. In the diagram you can see one large cell: a granule cell. Out below the granule cell there is an axon. Out above it there is a tree of dendrites. The lines running horizontally across the page represent axons from other neurons whose cell bodies are in other parts of the brain. The top bundle comes from the entorhinal cortex. The middle bundle comes from other parts of the hippocampus. This structure is amenable to comparative study of lesion and re-growth because it is possible to damage cells in the entorhinal cortex, and thus the axons stemming from those cells into the hippocampus, *without* damaging those axons from the other parts of the hippocampus; and this despite their very close proximity to one another in the section of the hippocampus represented in the diagram. Thus cell regeneration can be observable through visual examination.

Micrographs of this section of the hippocampus were produced in the following way. Because one cannot take micrographs of cells as they grow – any one micrograph required killing the animal to take it – the micrographs taken were actually taken of the hippocampi of multiple rats. A cohort of rats¹⁴⁰ was subjected to lesion of the entorhinal cortex and killed at different time intervals from the day of the lesion. Upon being killed, the brains of the animals were removed and placed in a “formaldehyde-like solution” which slowed decay.¹⁴¹ The hippocampus was then removed and small pieces were cut “in cross section.”¹⁴² These pieces were then placed in shallow dishes of liquid plastic and hardened. The resultant plastic discs were then cut “with a fine-toothed saw” to get access to the hippocampus therein. The exposed surface of the hippocampus was then sliced off using a microtome. The sliced-off surface was immersed in a series of liquids. These were for staining the material so that the cells within it could be distinguished visually, for rinsing the stain, for “counter-staining,” and for further rinsing.¹⁴³ These hippocampus sections were then ready to be micrographed. The microscopist would

¹³⁹ The diagram is taken from (Lynch 1985, p.36).

¹⁴⁰ These were “Sprague-Dawley rats – a standard breed of white rat of relatively uniform brain weight and dimension.” (Lynch 1985, p.37).

¹⁴¹ (Lynch 1985, p.37)

¹⁴² (Lynch 1985, p.37)

¹⁴³ (Lynch 1985, p.37)

take a series of micrographs in vertical alignment extending out from the layer of a granule cell body, following the line of a dendrite into the horizontal lines of the axons from elsewhere.¹⁴⁴

The micrographs were then analysed in the following way. A clear plastic sheet was laid over a montage of micrographs from successive days. A linear scale was drawn onto the plastic sheet running up from the granule cell body. The micrographs were divided into 5 micron segments ranging from 60 to 130 microns from the granule cell base. This scale would have to be computed with the degree of magnification of the microscope in mind. The cells in the micrograph were then marked according to cell type with different coloured markers for different types on the plastic overlay. The main distinction for our purposes was that between intact and degenerating axons.¹⁴⁵ The markings were then tallied. The relative density of intact and degenerate axons was calculated for each segment. Each count was indexed to a sector on the scale along which the segments were registered.¹⁴⁶ From this one could compare the densities at different distances from the granule cell body of intact and degenerate axons. One could then compare these densities from rats that had been killed at different intervals since being lesioned.

2.3.2 Some expressions and their application

The scientists involved were making two predictions. The first was that the frequency of intact axons on the site of the lesion will be greater at a later time than at an earlier time. The second is that the difference between an earlier and later day in area covered by intact axons is larger than the difference in area of the entorhinal cortex axons. The second was important because an alternative hypothesis to the hypothesis that there was cell growth was that the entorhinal region shrank and pulled in cells from the hippocampal region without there being any growth at all. To show this alternative hypothesis was false the investigators sought to show that the extent of increased area of intact axons could not be accounted for by the amount by which the entorhinal region shrank.

If these conditions were observed to obtain then the investigators would infer that cell regeneration was taking place. We can express this, once again, in terms of

¹⁴⁴ (Lynch 1985, p.38)

¹⁴⁵ Or more specifically the end of an axon, an axon bouton.

¹⁴⁶ (Lynch 1985, p.39, p.50)

Hempel's empiricist construal. So we have a theory, $T = \langle C, I \rangle$. In the present case the main principle which allows a subsequent prediction to be made is this:

L: If the frequency of intact axons in a given location is greater at a later time than at an earlier time, and if the difference between an earlier and later day in area covered by intact axons is larger than the difference in area of the entorhinal cortex axons, then there is growth of axons into the damaged region.

In this example unlike in the other two, at the time at which this experiment was carried out there was no straightforward criterion for "growth of axons into the damaged region." If there were, then to show that that was going on, one could employ that method. However, it is now possible to observe whether axons grow or not more directly.¹⁴⁷ That could provide a separate application criterion for "growth of axons into the damaged region."

We are going to focus on how the investigators employed the expression "intact axon." To apply it (as part of L) one needs to know what to count as an intact axon and what not. So how did the investigators count items as "intact axons" or not? The frequency of intact axons was ascertained by collecting tallies of the number of intact and degenerate cells from different days since lesion. Scientists looked over micrographs and literally counted the cells they could see, categorising them as (images of) intact axons or not. If the frequency of intact axons thus counted increased as the time since lesion increased then that was treated as an increase in the number of intact axons.¹⁴⁸ So in this procedure, the interpretation given to "intact axon" or "image of intact axon" was the marks on the micrographs studied by scientists at this part of the study. That is how the numbers for these frequencies were generated for the investigator's paper(s).

It was found that initially after the lesion there were no intact axons (as counted in the way just described) after the 75 micron mark.¹⁴⁹ But after several days, there came to be an increasing number.¹⁵⁰ It was shown that the shift in distribution of

¹⁴⁷ The technique involved replacing a skull segment with a window to observe cell growth. See: <http://www.plosbiology.org/article/info%3Adoi%2F10.1371%2Fjournal.pbio.0030301>.

¹⁴⁸ (Lynch 1985, p.50)

¹⁴⁹ Or more precisely, no intact axons were observed after a few days during which the axons had time to degenerate after the lesion.

¹⁵⁰ (Lynch 1985, p.50)

intact axons could not be accounted for by the alternative hypothesis.¹⁵¹ So the investigators made the inference licensed by L.

2.3.3 Confounding factors

L's application is just as subject to confounding factors as the principles of the earlier Hempelian examples. Intact axons in a given brain slice were counted by the appearance of marks on the material on which the relevant micrograph is printed. Any factor whose variation leads to variation in the numbers generated in the tallying process *without* variation in the actual structure of the hippocampi investigated will void the predictive principle thus applied.¹⁵² Investigators exhibited a sensitivity to such interference in how they classified marks on micrographs: as images of various sorts of cell (for our purposes: as intact axons or as degenerate axons) or instead as marks with no relation to the cells of the pertinent hippocampus. We will now run through a catalogue of fifteen examples of confounding factors to which investigators showed sensitivity. In each example there is something which can erroneously affect the tallying process described above either by leading to a failure to count intact axons or a failure to count only intact axons. Why provide so many examples? Because one objection to the claim that there is no *I* immune to confounding factors is that there are such *I* in the sciences when we consider sophisticated enough examples. That this is not so should become apparent if we take a step away from the dust of the textbook and, by way of the examples, toward the difficulties of application.

Example 1: An excessive level of staining solution on a part of the sliced hippocampus would mean an excessive level of heavy metal ion. Placed under an electron microscope, the micrograph taken would include an opaque dark patch corresponding to the excess stain.¹⁵³ The excess could accrue from so seemingly insignificant an act as "a researcher having exhaled his breath in close proximity to the stain." More generally, when staining, the time for which a brain part is left in a given liquid is something that will bear upon the tallying process. Too little and

¹⁵¹ (Lynch 1985, pp. 32-34, pp.104-107, pp.284-287)

¹⁵² Textbooks list problems that arise in laboratory procedures. Lynch (1985, p. 65, p.90) reports on this separately. We are interested in issues that arise which can only be discovered by examining the setting in which one carries out the project described and which may well be peculiar to it, but which need to be overcome for L to let one make a good prediction.

¹⁵³ (Lynch 1985, p.92)

things are not visibly discriminable; too much and you damage the material. There was inevitably variation in this across occasions of its performance.¹⁵⁴ Too much variation of this sort would void the use of the principle for prediction.¹⁵⁵

Example 2: The microtome when it cut a thin layer of hippocampus could leave a mark which appeared as a clear area in the texture of membranes and granules.¹⁵⁶

Example 3: There were formations of crystals during the embedding procedure (i.e. in which the tissue was immersed in a molten plastic and then allowed to harden). The crystals would appear as hole-like structures on the micrographs.¹⁵⁷

Example 4: When the (very) thin portion of the hippocampus was taken from the microtome after cutting, the material might fold. This would leave “visibly linear arrangements similar to knife marks in appearance.”¹⁵⁸

Example 5: Other marks which could distort how things appeared in the photographs included: “grains,” attributed to the effects of the embedding procedure; burn marks, from “the electron beam’s intensive passage through a thin sheet of tissue”; and dust particles and foreign matter.¹⁵⁹

Example 6: The microtome could stretch the material it cut, distorting the shapes and dimensions of items.¹⁶⁰ As a consequence one could confuse one item with another. The distortion might also affect the distribution of items across the grid used to divide the micrograph into five micron segments. If a given micrograph were stretched but treated as though it were not stretched, then when one counted the items in a given segment, one would count fewer than one would have, had one not stretched the material.

Example 7: When the brain tissue is placed in a “formaldehyde-like” substance, the substance might fail to properly perfuse the tissue. The result would be that that part of the tissue that was not properly preserved would decay. This would show

¹⁵⁴ (Lynch 1985, p.62)

¹⁵⁵ (Lynch 1985, p.100)

¹⁵⁶ (Lynch 1985, p.92). A microtome is a device for cutting very thin slices of material for use in microscopy.

¹⁵⁷ (Lynch 1985, p.93)

¹⁵⁸ (Lynch 1985, p.93)

¹⁵⁹ (Lynch 1985, p.93)

¹⁶⁰ (Lynch 1985, p.99)

itself in the micrographs as a “fused membrane.”¹⁶¹ It was taken as reason enough not to use the micrograph thus obtained to produce numbers. I presume this was because of concern about the accuracy of producing “raw” tallies from such materials.

Example 8: There could be a loss of the discreteness of cell membranes produced by the chemicals involved in staining and fixing.¹⁶²

Example 9: The chemical processes involved in preserving the brain tissue could break and displace membranes¹⁶³

Example 10: The dislodging of cells can have obvious consequences for tallying up the number of cells in each 5 micron segment. The scientists whom Lynch studied believed a certain kind of cell does not occur naturally in the blood stream. However, something that looked like that kind of cell was found in a capillary. It was counted as having got there from being displaced at some point in the production process.¹⁶⁴ Thus the scientists’ understanding of what *could* happen within a mammalian body impinged upon how they categorised items in the micrographs they examined.

Example 11: Recall the alternative hypothesis which the investigators sought to show irrelevant: the region of the hippocampus in which there was the degenerate axons shrinks but the intact axons do not grow. If this was not taken into account, one would, on the basis of the counting of observed intact axons, overestimate the extent of the expansion.

Example 12: A case is reported in which rats died prematurely from infection.¹⁶⁵ Their exposure to radiation had weakened their immune systems. This was corrected next time around by giving the rats doses of penicillin. The question to ask is: why did the scientists involved not go through the motions with these dead rats? Aside from the decay and concomitant distortion of results, the rats had to be alive for the axons to grow and they had to be alive for a *measured* period of time.

¹⁶¹ (Lynch 1985, pp.99-100)

¹⁶² (Lynch 1985, p.100)

¹⁶³ (Lynch 1985, p.100)

¹⁶⁴ (Lynch 1985, pp.101-104)

¹⁶⁵ (Lynch 1985, p.117)

Example 13: On one occasion an analyst of a montage took the micrographs to have a spatial arrangement on the table before him which they did not have. The micrographs were arranged in two columns. One ran on from the other. So there was a beginning on the base of one column. The series went up that column and then continued from the bottom of the other column. However, one of the analysts thought that the left hand column was where the sequence began when really it was the right hand column. This led to difficulties in the conversation between the scientists examining the micrographs. Their divergent understanding of the spatial arrangement of the micrographs influenced how each categorised items. Failures to do this right would undermine inferences drawn from tallies made.¹⁶⁶

Example 14: Materials were stored for periods of time. During this time they needed protecting from other occurrences. They were stored in such a way as to ensure this.¹⁶⁷

Example 15: The handling of the rats can introduce various invalidating factors. For instance, the injection of preservative into the brain had to be done before the rat's heart had ceased beating because the beating heart was used to get the substance into the rat's brain. Failure to get this right would affect the tallying process because of the importance of the preservative on the quality of the micrographs that are eventually taken. Lynch reports that various problems are faced when injecting preservatives into a rat's brain.¹⁶⁸ For instance, the rat may bleed in ways that threaten the injected chemical's arrival in the brain, which is consequential for how well preserved the hippocampus will be.

2.3.4 Summary

This is not intended as a finite list. Scientists doing the tallying had to be sensitive to what would undermine the employment of their predictive principle as applied and to change their tallying practices accordingly when required:

...the concrete visibility and indefinite possibility of artifact *haunts* the work in an ongoing fashion, and, in so haunting the work, is essentially part of

¹⁶⁶ (Lynch 1985, pp.239-247, but esp. p.243)

¹⁶⁷ (Lynch 1985, p.61)

¹⁶⁸ (Lynch 1985, pp.69-80)

the finding, testing, announcing, and arguing over results. (Lynch 1985, p.291, note 5)¹⁶⁹

Scientists deploying L do so not by implementing a general criterion of how an axon looks when a micrograph is taken of it but rather they examine the micrographs while exercising a constant sensitivity to how, in the circumstances, the images witnessed under the microscope should be interpreted in light of what confounding factors the local environment has induced. The result is that they adjust what they will count as an image of an intact axon depending upon whether confounding factors lead to erroneous deployments of L. So as with the previous examples, what on one occasion might be an adequate criterion for counting something as an intact axon will not on another.¹⁷⁰

3 Can we generalise?

In each example we have some *T* conforming to the empiricist construal which fails to provide accurate predictions in certain circumstances. The failures arise because there are factors present in those circumstances which influence whether or not that which is being predicted obtains but to which the basis upon which one makes the prediction is insensitive.

In the face of this Hempel proposes not that the candidates for *I* that he considers are not the real *I* for the relevant *C*.¹⁷¹ What he proposes instead is that *whatever I* is employed for a given *C* it must meet a proviso condition:

¹⁶⁹ For more recent empirical work on how scientists are “haunted” by confounding factors see papers by Kevin Dunbar, e.g. (Dunbar 2001).

¹⁷⁰ In their textbook on experimentation, Cook and Campbell (1979, p.7) describe three notions of control sought in carrying experiments. As they say, “The three senses of control all involve ruling out threats to valid inference.” For a more general discussion of threats to valid inference when carrying out an experiment see (Cook and Campbell 1979, chapter 2).

¹⁷¹ My reading of Hempel diverges from, for example, (Fodor 1991, p.21). Fodor invokes a distinction between strict and non-strict laws. The difference is between laws which have exceptions and laws which do not. Fodor claims that Hempel is claiming that there are no strict laws. For a discussion of the kind of distinction Fodor invokes here see (Woodward 2002). Fodor is only speaking accurately of Hempel in a sense. If in addition to having no exceptions, a strict law is one that has built into it its own application conditions, then yes, Hempel is claiming that there are no strict laws. But this is incidental to his main point. For it is also open, given the view I am attributing to Hempel, for what are traditionally classified as non-strict laws to be classified as strict *on some applications*. This way with Hempel would mean it is not accurate to say that he is denying that there are *any* strict laws. It is rather that he is dismissing the distinction between strict and non-strict laws that Fodor invokes so that he (Hempel) can take account of the application-sensitivity of what a law (as it were) says will happen given what else is so.

Provisoes might rather be viewed as *assumptions of completeness*. The proviso required for a theoretical inference from one sentence, S1, to another, S2, asserts, broadly speaking, that in a given case...no factors other than those specified in S1 are present which could affect the event described by S2. (Hempel 1988, p.157)

Hempel claims that when applying,¹⁷² with some given *I*, a *C* in which there are two sentences S1 and S2 and a principle that allows one to infer one from the other, one must ensure that nothing other than S1 (so interpreted) affects whether or not S2 (so interpreted) obtains. If one can do that, then one can make a valid inference; an accurate prediction.

Hempel's proviso requirement does need to be met. However, suppose there were some *I* such that no matter the circumstances in which a *T* were applied there are never any confounding factors which undermine the validity of inferences licensed by the theory. Then the empiricist construal of theories and their application could still be correct. For this reason, although the examples Hempel provides (and our own) are suggestive, they are not by themselves sufficient to establish Hempel's conclusion. Why would Hempel think his examples, combined with his proviso condition, imply that the empiricist construal is incorrect? He must be supposing that there are no *I* for a given *C* such that the *C* thus applied is immune to interference from further factors not registered by S1.¹⁷³ If this were so, then, given the proviso condition, no theory which was worth its salt would include its own application criteria. For if it did it would recommend that a user make predictions without proper warrant: it would be like drawing a conclusion about a claim from data collected in a badly conducted experiment. If the data were collected in an environment that is not properly controlled for what can influence the numbers (or whatever) generated, then the data will not be a basis upon which to draw valid inferences. If there are no *I* that are immune to interference from confounding factors, then using a theory that included its own application criteria would be on

¹⁷² (Hempel 1988, p.154)

¹⁷³ I should remind the reader that Hempel explicitly commits himself to the claim only that *usually* application criteria are subject to a proviso. However, a response open to Hempel's opponent is that Hempel was unable to find the correct application criteria for the theories he discusses but that that does not mean they are not there to be found. Because the examples Hempel provides are evidence against the empiricist construal only if this is not so, to have a case against the empiricist construal Hempel needs to suppose that there are no such criteria.

an equal footing with drawing inferences from such data.¹⁷⁴ In the next chapter we will see what can be done to support the Hempelian supposition.

¹⁷⁴ Indeed, Lynch's investigators do not use fixed criteria for applying "intact axon" but are instead constantly modifying what they will count as such with a sensitivity to the actual confounding factors of the circumstances.

CHAPTER IV

Formal semantics, balance, and calibration

1 Introduction

We have a lead. We will now follow it. I will first describe how we can represent the *C* element of Hempel's empiricist construal within a formal semantics. Second, I will describe, in more detail than we did in the last chapter, the supposition Hempel needs to make if we are to show the empiricist construal is incorrect. Third, I will present some reasons in favour of accepting this supposition. Fourth, I will present an argument against the empiricist construal. In a sense that will be explained below, I will conclude that speakers need to "calibrate" expressions when reasoning with them. They cannot rely on a pre-fabricated convenience. They have to do it themselves. This will then be illustrated with the sentence "The leaves are green." I close the chapter by explaining why the calibration of expressions for the purposes of valid reasoning would manifest itself in changes in the extension of linguistic expressions just as is witnessed in Travis cases. Given the need for calibration (as argued earlier in the chapter), there is then reason to expect Travis cases to arise as a natural part of language use. Furthermore, they arise in a way not amenable to a further factor analysis that includes commitment to the hypothesis. We will have in hand a reason to accept OS.

2 Reasoning and formal semantics

The element of the empiricist construal which includes the linguistic expressions with which reasoning is done is *C*. It will be useful in what follows if these

linguistic expressions conformed to a formal semantics for which we have a definition of entailment.

Let us say that a language which operates in accordance with a formal semantics is a semantic calculus. A semantic calculus can be used to calculate the truth-value of a sentence given the truth-values of some others. Recall our definition of entailment from our toy semantics in Chapter I:

Entailment: A sentence S relative to an LF α entails a sentence S' relative to an LF β for every model $M = \langle D, W, I, C, F \rangle$, if S is true in M relative to α , w , i , and c , then S' is true in M relative to β , w , i , and c .

For instance, consider the following three sentences:

- 1) Ralph sleeps.
- 2) If Ralph sleeps then Ralph sleeps.
- 3) Ralph sleeps.

We can apply a formal semantics to them by first generating LFs for these sentences:

- 1') $[s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]]$
- 2') $[s \text{ If } [s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]] \text{ then } [s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]]]$
- 3') $[s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]]$

Our question is then, do (1') and (2') entail (3')? To answer this we need to consider:

- 1'') $I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]])^{M,w,i,c,g}$
- 2'') $I([s \text{ If } [s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]] \text{ then } [s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]]])^{M,w,i,c,g}$
- 3'') $I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}]])^{M,w,i,c,g}$

To show there is an entailment we need to show that if (1'') = 1 and (2'')=1 then (3'')=1. Suppose that (1'')=1 and (2'')=1. Then, $F(\text{If...then...})(<I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}])^{M,w,i,c,g}, I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}])^{M,w,i,c,g}}>) = 1$, and, $I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}])^{M,w,i,c,g} = 1$. Given this, and given the semantic rule for $[s \text{ If } S \text{ then } S]$, $F(\text{If...then...})(<I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}])^{M,w,i,c,g}, I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}])^{M,w,i,c,g}}>) = 1$ only if $I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}])^{M,w,i,c,g} = 1$. Hence, $I([s [_{NP} \text{Ralph}] [_{Pred} \text{sleeps}])^{M,w,i,c,g} = 1$. So (1'') and (2'') entail (3'').

Thus our definition of entailment for our toy semantics, when applied to (1), (2), and (3) allows us to infer (3) from the truth of (1) and (2).

3 The contingency thesis

We closed the previous chapter with a description of a supposition Hempel needs to make if his proviso condition is to provide trouble for the empiricist construal. The supposition was that there are no I such that a C implemented with that I is immune to interference from confounding factors in all circumstances. I want now to state this supposition in a little more detail. This will require laying out some terms.

There is an ambiguity in the word “determine.” I can determine whether Alice will be on the Strand next Tuesday in the sense that I can discover whether this will be so or alternatively I can do so in the sense of making it is the case that Alice will or will not be on the Strand next Tuesday. I will use the word in the second sense. We will distinguish between two ways that a sentence can have its truth-value determined. The first is as follows. There are application criteria for the constituent expressions of the sentence. These determine the extensions of those expressions. There are then the composition rules for the sentence provided by the recursive semantic rules of the formal semantics. They make the truth-value of the sentence depend upon the relations between the extensions of the constituent expressions.¹⁷⁵ That is one way the truth-value of a sentence can be determined. We will call this the vertical determination of its truth-value. The second way in which a sentence can have its truth-value determined is by being entailed by other sentences modelled in the same formal semantics. We saw an example of this above. This second determining of the truth-value of a sentence we will call horizontal. So we have vertical and horizontal truth-value determination.

I want to introduce five requirements upon application criteria for expressions used in a stretch of reasoning. A stretch of reasoning is an argument with premises and a conclusion. We will focus on arguments in which the premises entail the conclusion. For simplicity let us suppose that there are no horizontal

¹⁷⁵ The truth-value of a sentence could also have an application criterion to itself rather than (or as well as) it being a function of the application criteria of constituent expressions. As we will see soon, I will suppose this is so for conditionals. Such determinations of truth-value are also classified as vertical.

determinations of the truth-value of the premises of the argument and that there are no horizontal determinations of the truth-value of the conclusion of the argument other than those mentioned in the requirements.

The first requirement is that there must be vertical ways in which the truth-values of the premise-sentences are determined. For example, suppose I attempt to make a prediction about how many eggs there are in the basket given there are x boxes in the basket and y eggs in each box. I do this with an argument: there are x boxes; there are y eggs per box; if there are x boxes and y eggs per box then there are $x*y$ eggs. I draw the obvious conclusion. But I cannot calculate how many eggs there are in the basket with this reasoning if the values I include for x and y are *stipulated*. The values for x and y have to be records of the number of boxes and the number of eggs per box. So the first requirement is this:

- 1) There must be application criteria for the premise sentences.

The second requirement is:

- 2) The truth-value of the conclusion must be horizontally determined by the truth-values of the premise sentences.

If not, then there is no way to use the argument to make predictions about the world via the premises of the argument. For example, if one attempted to derive the number of eggs in the basket without any premises from which to draw a conclusion about the total number of eggs in the basket then there would not be any *argument* by means of which you could learn of the total number of eggs in the basket.

The first point applies equally to the conclusion. So the third requirement is:

- 3) There must be application criteria for the conclusion sentence.

If there is no way in which the truth-value of the conclusion sentence depends upon how the world is, then any derivation of the sentence would not be a way to learn something about how the world is. It would be as though one derived the sentence, "The youths are klem," from the argument, "If the youths are rioting then the youths are klem; the youths are rioting," where there is nothing required of the world for the sentence "The youths are klem" to be true independent of the

premises (given that they determine the truth-value of the conclusion sentence). So to gain knowledge of the world the expressions constituting the conclusion sentence must have application criteria.

The fourth requirement is:

- 4) The application criteria of the premises and the conclusion cannot be numerically identical.

If they were then one would not be learning something by means of the argument because one would have to know what one would derive in order to begin the derivation. You do not *learn* that the youths are rioting from the argument: the youths are rioting; if the youths are rioting then the youths are rioting.

The fifth requirement is more easily stated if we introduce a new locution. Let us say that whether a given item falls within the extension of an expression is the *verdict* of an application criterion of that expression. The fifth requirement is then:

- 5) The application criteria of the premises and the conclusion must be such that their verdicts conform in their relation to the relation described by the relevant formal semantics.

Consider a simple argument: "If there are x boxes and y eggs per box, then there are $x*y$ eggs; there are x boxes and y eggs per box; so, there are $x*y$ eggs." This is a valid argument. Provided the argument is interpreted as part of the same semantic calculus, the conclusion is entailed by the premises. Now consider the requirements (1)-(4). Requirement (2) is met because there is an argument here. Suppose that there are application criteria for the premises and the conclusion (so requirements (1) and (3) are met). Suppose finally that the application criteria of the premises and conclusion are distinct (so requirement (4) is met). Now it is possible for the premises to have the truth-value true and the conclusion to have the truth-value false. For it is possible that the application criteria that vertically determine the truth-values of the premises return verdicts of true, while the application criterion that vertically determines the truth-value of the conclusion returns a verdict of false. This can happen despite the fact that the rules of the semantic calculus within which the argument is written introduce a horizontal determination of the

truth-value of the conclusion by the truth-values of the premises. In that case requirement (5) is not met.

For example, suppose that the application criterion for the number of eggs per box required one to effectively assume that each box was full. So the actual check carried out involved counting the number of eggs in one box that happened to be full and supposing that the place at which the boxes were filled did what was done to this box to all boxes. Then the number for y is determined by the verdict of an examination of just one box. So, suppose that there are 4 boxes. Then, that the sentence “there are 6 eggs per box” has its truth-value determined in this way will, in the circumstances in which not all boxes are filled, lead to a conflict between what truth-value the sentence, “there are 24 eggs,” will be assigned by means of the argument *thus applied* and what truth-value the sentence will be assigned by other application criteria.¹⁷⁶ The possibility can arise because there are two ways that the truth-value of the conclusion is determined: horizontally by the premises of the argument (whose truth-values are in turn determined vertically) and vertically by the application criteria of the conclusion sentence. For ease of reference, we will say that when the application criteria of the premises and conclusion of an argument meet this fifth condition, they are *balanced* and the argument is *balanced*.

Let us say that an array of application criteria for an argument is *contingently* balanced if there are possible circumstances in which those application criteria would be unbalanced. Our egg counting example illustrates this. In one circumstance having the truth-value of the sentence, “there are 6 eggs per box,” (metaphysically) determined by verdict of a visual inspection of a single box where the application criteria for the other expressions are filled in in some more or less obvious way, will be part of a balanced argument. But in other circumstances (one in which there is variation across boxes as to the number of eggs in each) the same argument applied with the same application criteria will be unbalanced. So when it is balanced, it is contingently balanced.

¹⁷⁶ Notice I am not denying that the reasoner fails to determine (in the epistemic sense) how many eggs there are. But nor am I supposing that the reasoner employs the sentence with more application criteria than have been mentioned. As *we* would use the English expressions, we can see that by the criteria we would most reasonably employ, the sentence “there are 24 eggs” is false. Nonetheless, given how *he* employs the expressions, the determinations (in the metaphysical sense) of the truth-values of his conclusion exhibit the property described (as we may well do too, in a moment of confusion).

We can now state the supposition which would put us in a position to claim, with Hempel, that theories, or more generally, arguments, do not have fixed application criteria. It is this:

There are no non-contingently balanced arrays of application criteria which meet the above five conditions.

Let us call this *the contingency thesis*.

3.1 Imbalance and other malfunctions

To get some perspective on what sort of thing balance is, consider two similar phenomena. One is set out by Diamond and the other is set out by Travis.¹⁷⁷ Diamond proposes that there are some sentences which are nonsense (they fail to have sense) and their being nonsense arises because one cannot find a way that the referent of an NP could have or not have a property ascribed to it by a given predicate. For example, for the sentence “Caesar is a prime number” ignoring certain easier readings, one can find it difficult to understand how “is a prime number” could be a condition that Caesar is or is not in. We could describe this in our terms by saying that one cannot find an application criterion for “is a prime number” such that one could reason with this sentence as part of an applied calculus.

Travis proposes that circumstances can arise in which there are facts which point toward a sentence being true and facts that point toward the sentence being false where this is not a case of epistemic shortfall. The way the world is arranged may mean that when all the facts are in, it is just not determinate whether a sentence is true or false. The principle of bivalence is violated. I take an example of this from a discussion of Thomas Kuhn’s later views on incommensurability as set out by an interpreter of that later work, Hoyningen-Huene.¹⁷⁸ He describes how the Egyptians were led to describe the river Euphrates as “that inverted water, which goes north in going south.” How did this claim come to be made? One can tell directions, north and south, by examining the stars. But also, as it happens, the Nile flows south to north in Egypt. From a distance one can tell one’s directions by examining whether the sails are up on the ships traversing that river. So one has

¹⁷⁷ (Diamond 1981) and (Travis 2009 [2008])

¹⁷⁸ (Hoyningen-Huene 1998, pp.13-14)

several criteria by means of which one might use the words “north” and “south.” These are criteria which in Egypt, coincide. However, at some point the Egyptians stumbled upon the Euphrates which flows north to south. The criteria that within Egypt coincided came apart. This led to the description of the Euphrates as that which goes north in going south. Given that something cannot both go north and south, to say “I am going north” when walking along the Euphrates, operating the expression “north” as the Egyptians did, would be to say something that is neither true nor false. Nothing more is to be discovered that will settle the matter given that the word “north” is so used. Travis calls this *natural isothernia*.

Being unbalanced, Diamond’s nonsense, and Travis’ natural isothernia are all species of a common genus. Each is a kind of malfunction of a calculus that arises because of what the application criteria are of the expressions used within the calculus. Unbalance arises when the vertical and horizontal determinations of the truth-value of a sentence do not coincide, allowing for a divergence between what we could call syntactic validity and validity in application. Diamond’s nonsense arises when it is not clear with what application criteria one should use a predicate. Travis’ natural isothernia arises when a single expression has multiple application criteria which do not return verdicts in unison. Each is a failure of a calculus upon application, one that goes unnoticed if one only ever considers stipulated models for a calculus which conform to the semantic rules of the calculus.

3.2 Why accept the contingency thesis?

In this sub-section and the next we will find reason to maintain the contingency thesis. An immediate problem one will have in disputing the thesis is finding counterexamples and that is one thing that counts in its favour. It is difficult to find application criteria that meet the five conditions and which are non-contingently balanced. One way to see this is if I draw attention to a similarity between the contingency thesis and a widespread view about the usual bases of our inferences. It is a well known source of scepticism that the bases of our everyday inferences, that from which we infer other things, are such that, there are some circumstances under which that base occurs but that which we infer does not. It is possible for something that I count as pain in my tooth to obtain without there being any decay, even though I might draw the inference from the one to the other.

Similarly, with smoke and fire, hot water from steam vapour, rain from the damp pavement, and so on. The kinds of thing that meet our five conditions are the kinds of thing that tend to encourage a scepticism about our ordinary epistemic habits and the responses to that scepticism. That is because, despite the fact that we draw the inferences we do, that which we draw our inferences from does not necessarily support that which we draw them to. But that is the contingency thesis.¹⁷⁹

A second reason to accept the thesis is that the best candidates there are for counterexamples to it are not counterexamples to it. The best candidates for counterexamples to this thesis are laws of science. These are general principles which both pertain to empirical states of affairs and can be (mistakenly) understood to licence inferences from certain kinds of states of affairs to certain others, without risk of being led to a falsehood. We have already seen that these principles need to be applied if predictions are to be made with them and it is in being applied that the sublime categories they employ have to be cashed out in terms of the hands-on apparatus of an experimental arrangement. At that point questions arise as to what counts as, for instance, an object's having 1 Newton of force, or an object's being a magnet, or an image being an image of an intact axon. There is not just one way to go about coming to a view on such matters. In some circumstances some of those ways of counting Newtons (etc.) will be such that one can reason well with them and in other circumstances those ways of counting Newtons (etc.) will not.

One might object that the example we considered of the magnet was too toy. One might suppose that one does not check whether a metal bar is a magnet by seeing if iron filings stick to it.¹⁸⁰ A more sophisticated technique will be available and that technique will not be susceptible to these concerns. In response to this objection I remind the reader of the intricacies involved in our third example. Presumably the kind of procedures the objector has in mind will include apparatus one would find in a laboratory and tests which are far more complex than throwing iron filings at metal bars. But I strongly suspect that if we were to examine such a procedure in all its particularity we would find another open ended list of 15 examples of

¹⁷⁹ In saying this I am not endorsing scepticism: the thesis that we know nothing or can justify no claim.

¹⁸⁰ Actually, most of us would in many circumstances use precisely this criterion. When someone says, "Oh look, it's magnetic," is it not commonly the case that the basis for the assertion was the pull the object exerted on other objects?

confounding factors for such a procedure, just as we did in the case of classifying cells as intact axons. One cannot escape the contingency thesis by making the scientific examples more complex.

3.3 Why reject the contingency thesis?

There are various reasons for thinking that the contingency thesis is false. I want now to consider six. By examining these I hope to make the thesis more plausible by showing how such easy exits are no such thing.

First of all, one might suspect that the thesis presupposes an erroneous view of what is available to us other than by inference: for example, that we are not capable of recognising force *per se* but only of making observations of a ball rolling down an inclined plane. If we did not accept such reductionism then we could allow that the terms of *C* do not need application criteria beyond something like: “F” is satisfied by things that are F. Rather, when we apply a theory we recognise forces, intact axons, and so on without inferring that something is thus from something else. We have that capacity.¹⁸¹

This kind of objection mistakes the current proposal for something it is not. Firstly, the current proposal concerns situations in which one is using principles by which to reason. I am not claiming that we are always drawing inferences when we are not. Secondly, and more importantly, the role of interpretation in the current discussion is not motivated by an attempt at metaphysical reduction, e.g. an instrumentalist reduction of force to the movements of balls down an inclined plane. It is motivated by the fact that thinkers have to come to views about whether something falls within the extension of an expression somehow. Sometimes, it is true, this is done with the exercise of a perceptual capacity. It is not done by carrying out a procedure or by drawing an inference. However, firstly, we only sometimes exercise a perceptual capacity in this way. For many determinations of how to categorise an item some check or minor investigation must unfold.¹⁸² Secondly, just because one does on some occasions exercise a

¹⁸¹ For this kind of complaint see (McDowell 1982 [1998]) and (Sacks 1992, Part I, Lecture 11).

¹⁸² “Let us consider the process of estimating a length by the eye: It is extremely important that you should realise that there are a great many different processes which we call “estimating by the eye”. Consider these cases:-- (1) Someone asks “How did you estimate the height of this building?” I answer: “It has four storeys; I suppose each storey is about

perceptual capacity to discern how to categorise an item, that does not mean there will not be occasions on which such ways of categorising items become unbalanced. Suppose one attempts to predict the total number of intact eggs by counting boxes and numbers of eggs per box. One does this by exercising a perceptual capacity to recognise boxes and intact eggs. But the way one might have been counting eggs in one circumstance, e.g. by things that look to you like eggs, need not be sufficient to accurately count eggs in another circumstance. Suppose that there are many doppelganger eggs in the boxes (an egg thief has tried to hide her crime). Then one could be fooled. That one is fooled does not mean one was only *ever* capable of recognising egg-like-things (as opposed to eggs). But it does mean in those circumstances, one's attempt to visually count the eggs renders application criteria in the argument unbalanced.¹⁸³

This first objection is related to another.¹⁸⁴ One might have a worry that hangs over from the previous chapter. One might not like this talk of application criteria at all. Is this not to accept a form of verificationism about meaning? One might think that the truth-conditions of a given sentence are its truth-conditions regardless of whether such and such persons *count* it as true under such and such conditions. But, one worries, *that* is not consistent with the invocation of application criteria made by us.

For starters, nothing has been said about *meaning*. However, there is what is to be understood by a sentence. A reasoner would have to have this in hand when employing a sentence to reason. We have supposed that this will be what would make true the sentence. So let us work with that.

fifteen feet high; so it must be about sixty feet." (2) In another case: "I roughly know what a yard at that distance looks like; so it must be about four yards long." (3) Or again: "I can imagine a tall man reaching to about this point; so it must be about six feet above the ground." (4) Or: "I don't know; it just looks like a yard.'" (Wittgenstein 1958a, p.11)

¹⁸³ Perceptual capacities vary not only with circumstance but with training. For example, Lynch (1985, p.2) describes how learning about electron microscopy "gave me considerably more access to the talk and conduct which I witnessed in the lab than would have been possible had I relied solely on the analytic skills of a social scientist while observing members' activities." Austin (1946) reports, what ought to be accepted anyway, that variation in the experience of a person changes what we count them as capable of knowing by sight.

¹⁸⁴ A second spin-off of the first objection might be raised by appeal to Putnam's (1973) observations. But these do not pose problems for the invocation of application criteria. That part of a way in which one ought to use a word is decided by the characteristics of a sample and that there are deferential uses of expressions does not show it to be false that there are ways in which speakers can come to views about what the extension of an expression is. Sometimes this will involve samples and experts. That is all that needs adding.

The accusation of anti-realism goes as follows. According to semantic anti-realism the truth-conditions of sentences employed by speakers cannot extend beyond those which are recognisable by the speakers themselves. One might think that by supposing that there are ways in which truth-values of sentences are determined in the form of application criteria, and by supposing that the truth-conditions of sentences can be documented by observing the usage made of such sentences by speakers, we are committed to denying that what is to be understood by a sentence, by those speakers, is what would make it true. We must instead suppose that what is to be understood is an epistemic notion such as assertability conditions. Why think that? The argument runs as follows:

- 1) There is a claim S whose truth-conditions cannot be manifested in a speaker's behaviour.
- 2) If that which is to be understood by S cannot be manifested in a speaker's behaviour, then that which is to be understood cannot be understood.
- 3) We understand that which is to be understood by S.

Hence,

- 4) That which is to be understood by S cannot be its truth-conditions.¹⁸⁵

In speaking of application criteria have we committed ourselves to this conclusion? Firstly, the reason usually given in favour of accepting (1) is that we are aware of no methods (so no application criteria) for checking whether certain kinds of sentence are true or false (e.g. negative existential claims, universally quantified generalisations, and claims about the past). I do not accept that we do not have such capacities. One can discern whether or not it rained yesterday, for instance, or whether if you had turned left that evening, you would have avoided the accident. But unless a sceptical attitude is adopted toward such sentences we are not forced to accept the first premise.¹⁸⁶ So we are not forced down a traditional route to anti-realism.

Secondly, perhaps we are committed to (1) simply because we are supposing that the truth-conditions of speaker's sentences are determined by the application

¹⁸⁵ For the argument see (Dummett 1973 [1978], pp.224-225) quoted in (McDowell 1981 [1998], pp.316-317).

¹⁸⁶ (McDowell 1978 [1998])

criteria a speaker uses. Hence, truth-conditions cannot extend beyond the application criteria known by the speakers. But then, because speakers will not be able to employ application criteria in many cases, the truth-conditions of sentences must, on the current view, be severely limited to that which speaker's can check. I concede this but only in a sense. There is a difference between expressions being operated in accordance with certain application criteria, and actually employing those application criteria to come to a view about the expression's extension. Compare: knowing what one would count as a beetle being in the box while having no way to employ the criterion to come to a view about whether there is a beetle in the box. All we have committed ourselves to in using the notion of an application criterion is that there are methods by which the extensions of expressions employed by speakers are determined. We have not supposed that speakers actually are able to employ all such methods in all circumstances in which they may utter a sentence whose constituents have given extensions. Speakers could employ expressions, which have given application criteria, and so, extension, but that the speakers cannot deploy to ascertain the actual extension (thus determined) of the expressions. The extensions of expressions would be limited to that which the application criteria by which speakers employed expressions would determine (and indeed, consequences of those of which speakers may be ignorant). But this is not the same as being limited to application criteria which speakers are, there and then, in a position to use to determine in an epistemic sense, the extension of expressions employed. In this way, the extension of an expression can, on the current view, extend beyond a speaker's capacity to ascertain the extension of an expression.

Third, it may be very tempting to expand the argument in question. One might think that one can introduce a check that can be performed for the confounding factors of the argument. One could conditionalise any inference drawn by means of the argument upon that. For example, suppose that when one is counting the eggs in the basket one aims to count not eggs in just any condition, but intact eggs. This is something that one has not checked for. So suppose one as it were, controls for this. One does a check for damaged eggs in each box, as well as counting the number of eggs in each box and the number of boxes. The equation employed in one's reasoning about the number of eggs in the basket is thereby expanded: Total eggs = (number in a box * number of boxes) – number of broken eggs.

However, this expansion of the argument will involve a new premise: there are z broken eggs. The argument thus expanded needs to satisfy the five conditions just outlined. There are many ways to detect whether an egg is broken and any one of them will be such that, on some occasions it enables one to make an accurate calculation but not on others. For instance, suppose one checks how many broken eggs there are by picking up each one in a box and performing a visual examination of the eggs. The trouble is, some eggs may be broken in a way that means they are not edible, for instance, but which would pass a visual inspection. In a circumstance in which that is indeed so, one's inference by means of the principle $\text{Total eggs} = (\text{number in a box} * \text{number of boxes}) - \text{number of broken eggs}$, thus applied, would be invalid. Expansion of an argument introduces an expanded problem.¹⁸⁷

Fourth, notice that there is no greater reason to think that an argument that is *probabilistic* will avoid confounding factors than an argument that is not probabilistic. To illustrate, suppose a marble is taken from a sack in which were placed ten marbles: four black marbles and six red marbles. One might think that if one were to take a marble out at random, check its colour and then return it, one could notice that the proportion of times the marble was red was .6.

But suppose one of the following is so: there is a paint canister that leaks inside the sack; there is a hole in the sack; the marbles are made of material that changes colour with the temperature. In such situations, that six red and four black marbles were placed in the sack means very little as regards the probability of withdrawing a red marble from the sack. A probabilistic argument still needs to be a valid argument if it is to support accurate predictions and it will be so only if the five conditions are met. But whether they are so will depend upon the circumstances.

Fifth, one might accept that strictly speaking there is no I (array of application criteria) that is non-contingently balanced but still maintain that there are those that are good enough. For the most part it is reasonable to assume that the model thus applied will be in stable enough circumstances within which the I in question works satisfactorily.

¹⁸⁷ See also (Hempel 1988, p.154) who, for this reason, distinguishes his requirement that a proviso condition be met when implementing a theory from the Duhem-Quine thesis.

But this is just to weaken the requirements of a good argument. To make an accurate prediction on the basis of observing such and such, the argument from that such and such to something else needs to be valid. Otherwise you are doing little better than guessing. Suppose someone conducts an experiment which aims to show that a certain drug cures depression. But suppose no one ever checked that there is a placebo effect. Can one draw the inference from observing a significant increase in recovery as compared with a control group that the drug contains chemicals which are active in the recoveries witnessed? No. It does not matter how large the apparent effect is. If the measurements were not conducted in such a way as to control for a placebo effect then inferences from the measurements taken are invalid inferences. They are not publishable and they should not be acted upon (by buying the drugs). Failures of balance do not leave in their wake arguments that are almost good enough but not quite. They are crippled.

Sixth, notice that we have had to suppose that a conditional has its truth-value assigned directly rather than compositionally in order to allow for the possibility of being unbalanced. One might balk at this: conditionals do not have their truth-values assigned directly but instead by means of the constituents of the sentence, viz. the truth-values of the antecedent and consequent. However, if this were true then one would not be able to engage in modus ponens or modus tollens inferences to extend one's knowledge. In modus ponens the truth-value of the antecedent and the truth-value of the conditional are determined vertically (neither is horizontally determined by the truth-value of other sentences, we may suppose) and they then horizontally determine the truth-value of the consequent. If it were not possible for the conditional to have a truth-value determined directly then this would not be possible. Something similar is equally applicable to modus tollens inferences. So we should not balk here. What might an application criterion for a conditional be? One is looking for situations such that, "If A then B." For instance, consider, "if o_1 is heavier than o_2 , o_2 will be higher than o_1 " where o_1 and o_2 are objects placed at either end of a seesaw. One might adopt this conditional because the locations are the ends of a seesaw which one can see before one. Other candidates for application criteria of conditionals include: it's a hospital, so if they call your name, then the doctor will see you; it's a phone, so if you dial the number of the person you are trying to call, you will call the person you are trying to call; and so on.

3.4 Calibration

We have now, not a knock-down justification of the contingency thesis but justification to accept it which seems to be robust enough to work with. I will henceforth suppose that it is true. If it is true, then one cannot apply an argument with fixed application criteria and reason with the argument validly. The argument for this new claim is as follows. Suppose that an argument is applied with fixed application criteria no matter the circumstances of application. We can express this using Hempel's empiricist construal combined with a formal semantics. Suppose the argument is expressed in a given formal semantics and we label the argument C . Suppose we label the application criteria for the expressions in the sentences in the argument I . Then we can speak of Hempel's empiricist construal as: $T = \langle C, I \rangle$. Now consider:

- 1) T is applied by deploying a given I on all applications.

We aim to show that (1) is not consistent with the utility of arguments in making accurate predictions about empirical states of affairs. That is, we aim to show that if (1) is true, then the argument in C is invalid. A standard understanding of what it is for an argument form to be valid is for it to not be possible for the premises to be true and the conclusion false. This notion is the one we will be using in this argument. However, another way to define validity is: a given argument form is valid iff when translated into a formal language, there are no models for the language on which the premises are true and the conclusion false. Talk of possible combinations of truth and falsehood is exchanged for talk of models on which claims within an argument are true or false. *This* notion of validity would render the present argument invalid because we will employ a notion of confounding which concerns how truth-values of sentences of C are determined that allows such determinations to diverge from the constraints of the semantic rules for the expressions of the formal semantics. The way in which one checks the validity of an argument on the second definition of validity is by ensuring that *given the ways that truth-values of sentences are determined conform to the semantic rules of the language* there is no model on which the premises are true, the conclusion false. Consider checking the validity of the argument stated in a predicate calculus which has the form: $Fa; Fa \rightarrow Ga; Ga$. One checks that there is no possible assignment of values to "a", "F", and "G", such that the premises are true and conclusion false.

But what is counted as a possible assignment of values conforms to the constraints provided by the truth-conditions of “ \rightarrow ”. But since we are concerned to recognise the fact that there are circumstances in which assignments of values do *not* conform to such rules (failures of balance), there is a variety of failure to move from truth to truth that would go unrecognised on this second definition of validity. If the reader does not want to use the word “valid” in our first sense then substitute the expression “applied validity” or “valid in application.” So we have:

- 2) C is a valid argument only if the conclusion of C cannot be false if the premises of C are true.

Recall the contingency thesis. If it is true, then for all that has been done in applying the theory (on the empiricist construal), there can be confounding factors that have unbalanced the application criteria, i.e. I . So we have:

- 3) For any I , there will be some circumstances in which I is unbalanced.

Given (1) and (3), there is nothing in how a theory is applied (on the empiricist construal) which distinguishes between those circumstances in which the theory would be unbalanced from those in which it would not. But then it is possible for the premises to be true and the conclusion false, for all that has been done in the application. So we have the following conditional:

- 4) If C is applied without ensuring there are no confounding factors and there are some circumstances in which I is unbalanced, then it is possible for the premises of C to be true and the conclusion of C to be false.

Now we can draw some inferences. Given (1), (3), (4) and *modus ponens* we have:

- 5) It is possible for the premises of C to be true and the conclusion of C to be false.

But given (2), (5) and *modus tollens* we get:

- 6) C is not a valid argument.

Thus from the contingency thesis, an assumption about validity, and the assumption that theories have embedded within them their own application

conditions, we can derive the conclusion that one cannot reason validly with theories that satisfy (1).

One qualm one might have with this argument is that the notion of validity employed is too loose. If we do not define validity with respect to the “for all models” notion then how are we to have a clear statement of when it is possible for a conclusion to follow from some premises? In response to this concern I say the following. The reason why we have considered another notion of validity is because if one relied just upon the “for all models” notion of validity, one could employ a theory, *think* one is guaranteed a true conclusion, but fail to get one because the reason why this possibility is available is not registered by the “for all models” notion of validity. In practice, whether one will get a true conclusion given true premises, depends upon whether the world is so arranged that the application criteria one employs in applying the theory return verdicts that are balanced. Whether the world is so arranged is not something one can check just by examining the form of the assumptions, and the individual application criteria, one employs in making the inference one does. So although we have had to employ another notion of validity, we did so for a reason. We may well crave the explicitness of the other definition but that doesn’t justify employing only it in discussions of good and bad reasoning. An intuitive understanding of what can happen in particular circumstances will serve our purposes well enough. For what I want to be recognised is a reason why it would be a good thing if the speakers who operate linguistic expressions had the task of determining their extension as they use those expressions rather than that being settled in advance as a built-in, fixed feature of the language they speak. Once we recognise the problems of finding application criteria which enable accurate predictions to be made (or inferences to true conclusions to be drawn) regardless of the circumstances, we find such a reason. But to do that we have had to take into consideration factors which though present in real episodes of reasoning are abstracted away when discussing a formal semantics or logic in abstraction from actual episodes of reasoning.

If one cannot reason validly with an argument with fixed application criteria, but to reason validly there needs to be a balanced array of application criteria, then, identifying a balanced array of application criteria is what *the reasoner* has to do when reasoning. It is not a task that can be presumed to have been handled already by the terms of the argument. If one is going to reason with a particular

theory, about a particular state of affairs, then one needs, in effect, to *calibrate* the argument's application criteria for valid reasoning in the circumstances. One has to find some array of application criteria which meets the five conditions described above. I will use this term (calibration) to speak of this process henceforth.¹⁸⁸

4 Calibration: an illustration

In this section we will look at an example of calibration. The example will illustrate the difference calibration makes to the validity (in application) of an argument expressed with natural language expressions with changes of circumstance.

4.1 A language game

When Wittgenstein introduces the notion of a language game in his *Investigations* he means a unity of action and signs. (Wittgenstein 1958, p.5) Words are only a part of what is going on. Common to many uses of linguistic expressions will be the application of a semantic calculus. If the expressions employed conform to the rules of a formal semantic calculus then one can reason with those expressions: one can (in the epistemic sense) determine the truth-value of one sentence from the truth-values of others *and* have this be more than a syntactic exercise, i.e. by means of it one can learn about how things are before, or without, learning how they are directly. We will call this language game "reasoning with a calculus." We will consider a case in which this is what someone seeks to do. Although this game is an abstraction (something common to many different uses to which linguistic expressions can be put) it is nonetheless an activity which can be embedded within the variety of which Wittgenstein's list of language games is suggestive.¹⁸⁹

¹⁸⁸ Compare: "I believe that I can best make the relation of my ideography to ordinary language clear if I compare it to that which the microscope has to the eye. Because of the range of its possible uses and the versatility with which it can adapt to the most diverse circumstances, the eye is far superior to the microscope." (Frege 1879 [1997], p.49) The way Frege continues, it is clear he intends the analogy to be: formal language is to natural language as the microscope is to the naked eye. I think the better analogy is: formal language is to natural language as the uncalibrated eye is to an eye in use (possibly with a microscope). The formal element is always present in the form of the logico-syntactic structures unearthed by semanticists. But that alone is always in need of being calibrated so "it can adapt to the most diverse circumstances."

¹⁸⁹ (Wittgenstein 1958, p.11): giving orders and obeying them; describing the appearance of an object, giving its measurements, constructing an object from a description, reporting an event, speculating about an event, forming a test or hypothesis, making up a story, reading a story, play-acting, singing catches, guessing riddles, making a joke, telling a joke, solving

Suppose Holiday sits in front of a piece of paper with a pencil. Before her is a scene with elements within it. She knows the rules and expressions of a semantic calculus. She can write out sentences on the paper and modify them in accordance with the rules given various stipulated models for the linguistic expressions employed. She wants to use the expressions and rules to reason about the scene before her. Because of this she will not settle for stipulated models. She wants application criteria for her expressions which make the truth-values of sentences depend upon elements of the scene before her. Because of this, not only do there need to be application criteria for the expressions she employs but those employed need to be balanced. Otherwise, reasoning in accordance with the rules of the calculus will lead her to expect something that does not happen.

Suppose the argument she uses to reason about the scene before her is this: the leaves were green and the leaves were processed; if the leaves were green and the leaves were processed then the leaves glow red; the leaves glow red. As well as the logical connectives “If...then” and “and” there are the following expressions in this stretch of reasoning:

NP→the leaves

Pred→were green

Pred→were processed

Pred→glow red

What about the application criteria for these expressions? Suppose that the application criterion for “were processed” is as follows. The leaves were baked so they dry. They were then ground in a mortar and pestle. They were then mixed with a solvent in a test tube and left to settle for a day. The solids were then removed leaving only the fluid. Depending upon whether or not this process has taken place is how one counts items as within the extension of “were processed.” What is the significance of processing leaves? Chlorophyll is found in naturally green leaves. Chlorophyll pigment will glow orange-red when placed under UV-light. Red leaves which have been painted green will not do this. Suppose that the application criterion for the conditional in the argument is that this is how leaves

a problem in practical arithmetic, translating from one language into another, asking, thanking, cursing, greeting, praying.

have been found to behave by various experiments. If those experiments had produced different results, then one would classify these sentences as having different truth-values. Suppose the application criterion for “glow red” is that the leaves fluoresce an orange-red when placed under a UV-light in an otherwise dark room. Suppose how leaves are counted is by their shape and texture. Holiday has developed a feel for what is leaf-like in this respect and exercises this recognitional capacity in the circumstances.

We will consider two application criteria for “were green.” On the first, one simply examines the surface colour of the object in London sunlight. If the leaves look green under such conditions, then they are classified as green. If not, then not. Call this the *surface criterion*. On the second, one slices the leaves to examine whether their interior is green. If so, then they are classified as in the extension of “were green” if not then not. Call this the *inner criterion*.

4.2 Four possibilities

Suppose that Holiday attempts to reason with the above argument about what happens in the scene before her. Regardless of the application criterion of “were green” the sentences are operated in accordance with the same rules. These are the relevant rules from our toy semantics. We will now consider what happens if we vary two factors. Firstly, the application criterion of “were green” and secondly the circumstances (what kind of leaves are in the scene before her). For each possibility we will describe a model for the basic non-logical expressions of the argument. The model describes what falls within non-logical basic expressions’ extensions according to the verdicts of application criteria operated in a given environment. But because a conditional can have its truth-value determined by its own application criterion (so that, recall, one can engage in modus ponens or modus tollens inferences), it is possible for the truth-value of a sentence determined horizontally to diverge from its truth-value determined vertically. In that case, the calculus is unbalanced and reasoning done in accordance with its semantic rules is invalid (in application). We will consider how whether the argument is balanced varies between the four possibilities and hence whether Holiday’s reasoning is valid (in application) in each case.

The first case we will consider is reasoning with the surface criterion while there are leaves present that have been painted green. In this case we could expect a model that looks like the following, M_3 :

D =	{a}			
		i_1	i_2	i_3
F(leaves)(i_n) =	{a}	{a}	{a}	
		i_1	i_2	i_3
F(are processed)(i_n) =	{}	{a}	{}	
		i_1	i_2	i_3
F(are green)(i_n) =	{a}	{}	{}	
		i_1	i_2	i_3
F(glow red)(i_n) =	{}	{}	{}	

There is an object a . By the criteria employed it counts as leaves. At time i_1 the leaves do not count as processed, they do count as green, and they do not count as red. At time i_2 the leaves count as processed, but not as green and not as glowing red. Then at i_3 they do not count as being processed, as being green, or as glowing red.

The rules of the calculus thus deployed provide a horizontal determination of the truth-value of the sentence “The leaves glow red” which *diverges* from that of the vertical determination of its truth-value. This is because the application criteria by which one operates the sentences will be such that $I([s [_{NP} \text{The leaves}] [_{Pred} \text{were green}]])^{M_3, w, i_3, c, g} = 1$, $I([s [_{NP} \text{the leaves}] [_{Pred} \text{were processed}]])^{M_3, w, i_3, c, g} = 1$, and $I([s \text{ If } [s [_{NP} \text{the leaves}] [_{Pred} \text{were green}]] [_{conj} \text{and}] [s [_{NP} \text{the leaves}] [_{Pred} \text{were processed}]] \text{ then } [s [_{NP} \text{the leaves}] [_{Pred} \text{glow red}]]])^{M_3, w, i_3, c, g} = 1$. But if they are true then the rules of the formal semantics allow one to derive $I([s [_{NP} \text{The leaves}] [_{Pred} \text{glow red}]])^{M_3, w, i_3, c, g} = 1$. For if they are true but $I([s [_{NP} \text{The leaves}] [_{Pred} \text{glow red}]])^{M_3, w, i_3, c, g} = 0$ then according to the semantic rule for “If...then...” $I([s \text{ If } [s [_{NP} \text{the leaves}] [_{Pred} \text{are green}]] [_{conj} \text{and}] [s [_{NP} \text{the leaves}] [_{Pred} \text{are processed}]] \text{ then } [s [_{NP} \text{the leaves}] [_{Pred} \text{glow red}]]])^{M_3, w, i_3, c, g} = 0$, contrary to fact. So in the circumstances, if one employs the

present application criterion for “are green” and the relevant one for the conditional, and if one follows the rules of the calculus, one will draw a false conclusion. The vertical determination of $I([_S [_{NP} \text{The leaves}] [_{Pred} \text{glow red}]])^{M3,w,i3,c,g}$ leads to one truth-value and the horizontal determination of $I([_S [_{NP} \text{The leaves}] [_{Pred} \text{glow red}]])^{M3,w,i3,c,g}$ leads to the opposite truth-value.

Now suppose again that the surface application criterion for “were green” is employed but, in contrast to the previous case, there are no painted leaves present. Then one’s reasoning with the sentences would be unproblematic. In this case, the linguistic expressions operated with the same application criteria would conform to a model like M_4 :

$D =$	$\{a\}$			
	i_1	i_2	i_3	
$F(\text{leaves})(i_n) =$	$\{a\}$	$\{a\}$	$\{a\}$	
	i_1	i_2	i_3	
$F(\text{are processed})(i_n) =$	$\{\}$	$\{a\}$	$\{\}$	
	i_1	i_2	i_3	
$F(\text{are green})(i_n) =$	$\{a\}$	$\{a\}$	$\{a\}$	
	i_1	i_2	i_3	
$F(\text{glow red})(i_n) =$	$\{\}$	$\{\}$	$\{a\}$	

Now the vertical determination of the truth-value of “The leaves glow red” would coincide with truth-value provided by a horizontal determination, given the application criteria and the rules of the calculus in operation. When the world and the linguistic expressions are so arranged, one will not derive a falsehood while following the rules of the formal semantics.

Thus a difference in circumstance can change whether a calculus is balanced, when its expressions are operated in accordance with certain application criteria. This is what the examples from the previous chapter illustrated too. But in the present

example we see this phenomenon in relation to more mundane reasoning than that which involves scientific terms like “magnet,” “force,” and “intact axon.”

Now turn to the inner criterion for “were green.” If this were employed then the presence of painted leaves will not pose a threat to the (applied) validity of one’s reasoning because one will not classify painted leaves as green unless they are also green on the inside. So operated, the vertical determination of the extensions of expressions would result in the following, M_5 :

$D =$	$\{a\}$			
	i_1	i_2	i_3	
$F(\text{leaves})(i_n) =$	$\{a\}$	$\{a\}$	$\{a\}$	
	i_1	i_2	i_3	
$F(\text{are processed})(i_n) =$	$\{\}$	$\{a\}$	$\{\}$	
	i_1	i_2	i_3	
$F(\text{are green})(i_n) =$	$\{\}$	$\{\}$	$\{\}$	
	i_1	i_2	i_3	
$F(\text{glow red})(i_n) =$	$\{\}$	$\{\}$	$\{\}$	

One could not employ the rules of the calculus to derive $I([s [_{NP} \text{The leaves}][_{Pred} \text{glow red}]]^{M_5, w, i_3, c, g}) = 1$ because the vertical determinations of the truth-value of the premises of the argument return a verdict of 0. So in this case one would not be led into deriving a falsehood because one would not be led into deriving anything.

Similarly, if there were no painted leaves present then there would be no problem here either. The model would not diverge from M_5 . This concludes our four possibilities. Thus with changes in application criteria and in the circumstances in which given application criteria are employed, there are changes in whether the application criteria are balanced and hence in whether the vertical and horizontal determinations of the truth-value of a sentence coincide and hence, in turn, whether reasoning with the calculus thus applied will be valid in application. Holiday, sitting in her chair, attempting to reason about the scene before her with

her expressions, rules, pencil and paper needs to change how she operates the expressions in accordance with the demands of the circumstances. She needs to calibrate what she counts as satisfying the predicate “are green” and what falls within the extension in the circumstances of the other linguistic expressions she employs so that, in those circumstances, she can reason validly (in application) about the condition of items in those circumstances.

One might object that the second criterion is the better criterion *tout court*. In which case, if only we had used the better criterion, there would be no need to calibrate. However, this is not true. In some cases employing it will be a mistake. To illustrate how, consider the use of “are green” in a different stretch of reasoning to that considered just now.¹⁹⁰ Suppose one uses the following sentences as part of a calculus that operates in accordance with our toy semantics: if the leaves are painted then the leaves will be green; the leaves are painted; so the leaves will be green. Suppose the application criterion for “are painted” is that a paintbrush covered in green painted is applied to the leaves and pastes the leaves in green paint. Suppose that one classifies items as falling within the extension of “are green” if they appear green upon visual inspection (the surface criterion). Similarly for “are red.” One’s reasoning can be valid (in application) even if the leaves were red and only end up being green on their surface. This is because the extensions of the constituent expressions would be as in M_6 :

D =	{a}		
	i ₁	i ₂	i ₃
F(leaves)(i _n) =	{a}	{a}	{a}
	i ₁	i ₂	i ₃
F(are green)(i _n) =	{}	{}	{a}

¹⁹⁰ The temporal difference between the current and the previous example is inessential to the point being made. If you think it is then add a further time to the model i_4 and use “were green” in the examples with the sentences evaluated related to i_4 . The result is the same as it will be in the present discussion. But we would need to add in a temporal distinction between the time in the past when the leaves were green and the time in the past when the leaves were red, e.g. “at 2pm” and “at 220pm.” We can avoid this complication if we modify the formulation from the previous example.

$$\begin{array}{rcccl}
& & i_1 & i_2 & i_3 \\
F(\text{are red})(i_n) = & & \{a\} & \{a\} & \{\} \\
& & i_1 & i_2 & i_3 \\
F(\text{paint})(i_n) = & & \{\} & \{a\} & \{\}
\end{array}$$

The rules of the calculus combined with the surface criteria, in the circumstances described, would result in the same truth-value being determined for $I([_S [_{NP} \text{The leaves}] [_{Pred} \text{are green}]]])^{M6,w,i3,c,g}$ horizontally as it is vertically; namely, 1.

But this could fail to be so. For instance, suppose the leaves present begin red on the surface without having been painted but are throughout i_1 - i_3 white on the inside.¹⁹¹ Suppose the leaves become painted as before and that the same application criteria are employed as before. Then although one would reason as one did before, the actual model for one's words would be, M_7 :

$$\begin{array}{rcccl}
D = & & \{a, b\} & & \\
& & i_1 & i_2 & i_3 \\
F(\text{leaves})(i_n) = & & \{a\} & \{a\} & \{a\} \\
& & i_1 & i_2 & i_3 \\
F(\text{are green})(i_n) = & & \{\} & \{\} & \{\} \\
& & i_1 & i_2 & i_3 \\
F(\text{are white})(i_n) = & & \{a\} & \{a\} & \{a\} \\
& & i_1 & i_2 & i_3 \\
F(\text{paint})(i_n) = & & \{\} & \{a\} & \{\}
\end{array}$$

In this case while $I([_S [_{NP} \text{The leaves}] [_{Pred} \text{are green}]]])^{M7,w,i3,c,g}$ would have the truth-value 0 determined vertically, it would have the truth-value 1 determined

¹⁹¹ Suppose they have been grown with an inhibitor of pigment to their interior only. Pyke, Zubko, and Day (2000) describe how this can be done for green leaves. Let us suppose it can be done for red leaves.

horizontally. Thus the inner criterion, for some purposes, in some circumstances, can equally well lead to an unbalanced calculus as can the surface criterion.

5 Calibration and Travis cases

How does all this relate to the usual discussions to be found of that tired sentence “The leaves are green”? The sentence usually arises in connection with Pia and her russet leaves:

Pia’s Japanese maple is full of russet leaves. Believing that green is the colour of leaves, she paints them. Returning, she reports, ‘That’s better. The leaves are green now.’ She speaks truth. A botanist friend then phones, seeking green leaves for a study of green-leaf chemistry. ‘The leaves (on my tree) are green,’ Pia says. ‘You can have those.’ But now Pia speaks falsehood. (Travis 1997 [2008], p.111).

I have not approached the sentence via this passage. I have not attempted to elicit intuitions about whether one would say it is true or false under such and such circumstances. What I have tried to do is evaluate how different criteria for determining (in the metaphysical sense) whether it is true or false would be more or less useful for using the sentence when reasoning with the sentence as part of a calculus of linguistic expressions, in different circumstances. We have found that in different circumstances in which the reasoning is done (and with different stretches of reasoning) different application criteria would better serve one’s purposes in the use to which one puts the sentence.

Notice that in the story Travis tells the different stretches of reasoning we considered each have a natural place. When Pia is announcing her accomplishment in turning the leaves green, she appears very much to be comparing their current condition with how they were at an earlier time. She is employing her sentence as part of an argument that looks like the second argument we considered. Pia’s words in response to her friend’s request appear very much to be a case in which the leaves are being related¹⁹² to how they would behave under certain experimental manipulations, e.g. by isolating their pigment and shining it under a UV-light in an otherwise dark room. So something like the first argument we considered is what her sentence would figure within when she is responding to her

¹⁹² At least, by ourselves and her friend.

friend's request for green leaves. In each case exactly how one counts things as green or not may need to change as between the two cases if one wants to employ the sentence in valid (in application) reasoning.

If a process of calibration is going on in the use of the predicate "is green" for reasoning about the leaves' relation to different collections of other items (in different circumstances) then the fluctuation of extension witnessed in different uses of the same predicate for different purposes is exactly what one should expect. The predicate is being put to work in different calculi which need the predicate to be differently calibrated if the calculi are to enable valid (in application) reasoning.

This is no less a plausible thing to say for other Travis cases. Here is another example:

Story I: Smith is quite proud of the results of the rigorous diet he has followed. He has lost easily 15kg. Stepping on the scales one morning, he notes with satisfaction that they register a thick hair or two below 80 kilos. At the office, he proudly announces, 'I now weigh 80 kilos.' But the tiresome Melvin replies, 'What! In that heavy tweed suit? Not very likely.' and, pulling a bathroom scale out of his bottom desk drawer and pushing Smith on to it, notes with satisfaction, 'Look. 83 and a bit.' (For good measure, let us suppose Smith not yet to have taken off his overcoat, so that the scale actually reads 86.) Of course, we would say, what Melvin has demonstrated does not count against what Smith said. (*Contrasting*) *Story II:* Smith, dressed in the last way, is about to step into a crowded elevator. 'Wait a minute.', someone says, This elevator is really very delicate. We can only take 80 more kilos.' 'Coincidentally, that's exactly what I weigh,' replies Smith. In he steps, and down they plummet. So it appears that what Smith said this time is false. (Travis 1985, pp.199-200)

These are two stories in which an unambiguous, non-elliptical, not-relevantly-indexical sentence is used. The sentence has different truth-values in each story but is used to speak of the same object in the same condition in each story. Notice how the item spoken of in the use of the sentence is spoken of in relation to different collections of items. In the first story, Smith is comparing his current condition to how he was whenever he last measured his weight (for purposes of maintaining one's figure). The way one checks one's weight is to weigh oneself at

different time intervals in the same condition each time, whatever that was. We can see that this makes a difference to how Smith ought to weigh himself if he is concerned with whether he has lost weight. To know he has lost weight by standing on the scales he must know what he weighed at some previous time, viz. 95kg. But if he weighed himself last time while fully clothed, then in Travis' first story what the man says would be false. The way in which the predicate "weighs less than 80kg" is to be employed, i.e. with what application criterion, depends upon both how he weighed himself last time and the fact that he is comparing numbers and wants to derive a conclusion about having lost some weight since last weighing. But things are different in the second story. There, how he weighed himself the last time he weighed himself does not matter. What matters now is the relation between Smith's current condition and the workings of the elevator. Smith and the someone want to be able to use the predicate "weighs less than 80kg" in such a way that it can be used to reason about what would happen if Smith stepped onto the elevator. To do that a different application criterion for the predicate is needed than whatever number the scales turned to that morning, given the discrepancy in the materials hanging from Smith's body between those two occasions. However, as with the first story, this *need* not be so. If for instance, Smith is on holiday at a nudist camp and the way he measured himself in the morning was the way he would enter the elevator, then there is nothing wrong with using the number the scale turned to that morning as a criterion for satisfying the predicate "weigh less than 80kg" for the purposes of reasoning about what will happen if Smith steps onto the elevator (given suitable application criteria for other linguistic expressions one uses in this reasoning).¹⁹³

In sum, we have reason to do something which if we were to do it, would lead to the occurrence of Travis cases. This "something" is the calibration of the expressions employed in applied reasoning. If we did not do this, then our capacity to reason

¹⁹³ The reader may have wondered about possible connections between OS and Goodman's (1979 [1983]) riddle. We can think of Goodman's specification of how to use certain predicates as specifications of application criteria for employing them. A bent predicate is one that involves changing the application criteria in some circumstance (Goodman happens to pick on time, but this seems inessential). Goodman thought we needed a way to distinguish bent from non-bent predicates because bent predicates are bad predicates. I think we actively go about bending our predicates for use in particular circumstances because we do not possess knowledge of ways of applying predicates which enable valid inferences regardless of the circumstances (the threat of confounding factors). In a sense analogous to what Evans (1985) had in mind when *he* said it for demonstratives, we have to run to keep still.

with linguistic expressions as elements of a semantic calculus would be put at risk. If this is a correct genealogy of the context-sensitivity witnessed in Travis cases then a paraphrase of Harold Garfinkel's words adequately captures the current sentiment: to try expunging context-sensitivity from one's analysis of language use is to try tearing down the walls of a building so that one can get a better look at what holds up the roof.¹⁹⁴ It is as important an element of language use as phonology or grammar and just as optional.

5.1 Analysing a scene

We arrive at the following image of an applied reasoner. A reasoner can analyse one scene in many different ways. She breaks it down into elements, which she divides into some categories, and she identifies some principles relating the categories and their membership. She *could* associate the categories and items with particular linguistic expressions. But there is no reason why she *needs* to do so. We might think of an expression in a semantic calculus as playing a functional-role defined by the principles in which it figures (primarily, the syntactic and semantic rules to which it is subject), and its extension/intension. Let us call this an *analysis of a scene*. Some analyses will enable valid (in application) reasoning about the scene and some will not.¹⁹⁵ None of this is to rule out the possibility that there is one universe-wide analysis that could be provided in the terms of some future science.

This allows us to address an obvious shortcoming of the current treatment of Travis cases. That treatment speaks of other sentences with which the analysed sentence (e.g. "The leaves are green") is related. But no such sentences are provided in statements of Travis cases. Nonetheless, the analysed sentence may well be being employed to speak of some item as part of a scene, as we can say, under a given analysis.

¹⁹⁴ (Garfinkel 1967, p.22)

¹⁹⁵ Goffman (1974, chapter 7) provides numerous examples of how some elements of a scene are ignored while others are taken into consideration in thinking about a scene and Goffman's (1974, chapter 9) examples of "misframings" illustrate ordinary ways in which this can go awry. See also (Camp 2004).

5.2 Calibration, further factor views, and OS

If the contingency thesis is granted, so there is a *need* to engage in calibration, then a further factor analysis of Travis cases is a mistake. For as I have emphasised previously, if one introduces more factors into one's semantic analysis, then these have to have their values, on occasion, determined by how things are somehow. Consider, for example, MacFarlane's "counts as" parameter.¹⁹⁶ MacFarlane's idea is that one can eliminate Travis cases from a semantic analysis of a sentence by introducing a parameter which changes its value with context but that when it has a given value, and when the other elements of the semantic analysis are held constant, there is no possibility of fluctuation in the truth-value of the sentence analysed across different instances of it. However, as Predelli noted, there are different ways in which the user of a linguistic expression might count the "counts as" parameter as having a given value across different instances of the sentence analysed.¹⁹⁷ The point should be well taken. If you add in new factors whose values need to be determined vertically (as does MacFarlane's "counts as" parameter, and as would any other parameter one cares to add) but there are various ways to do this which are employed on different instances of the sentence analysed, then the additional parameter would not halt changes in the truth-value of the sentence across different instances.¹⁹⁸ Since the ways values are assigned to these parameters will vary in whether they are capable of supporting valid reasoning, there is a reason to expect the ways in which such parameters get their values to vary. Hence, adding more factors into the semantic analysis will not result in the removal of the phenomenon exhibited in Travis cases from the linguistic expressions one is offering the analysis for.¹⁹⁹ So if the contingency thesis is granted, no further factor analysis of a sentence will eliminate Travis cases.²⁰⁰

Furthermore, we would have reason to reject the hypothesis. The hypothesis recall is that there are long regularities in the substantial extensions of expressions of natural languages. This requires there to be some semantic analysis (possibly

¹⁹⁶ (MacFarlane 2007)

¹⁹⁷ (Predelli 2005a)

¹⁹⁸ See my discussion of Predelli in Chapter II for further explanation.

¹⁹⁹ The move is akin to one objection to the contingency thesis we discussed earlier: expanding the argument.

²⁰⁰ Again, his words are appropriate: "...not only does no concept of context-in-general exist, but every use of "context" without exception is itself essentially indexical." (Garfinkel 1967, p.10)

involving psychological elements) of expressions that would allow us in principle to describe an invariant model for that semantic analysis for the duration of time for which it is true that someone speaks a language. Suppose that language users, being as they are capable reasoners, only use linguistic expressions with which they can reason. Then the regularity that would make true the hypothesis is possible only if the users of the language have in their possession application criteria for their linguistic expressions which are non-contingently balanced when they formulate arguments with them. But if the contingency thesis is true, then this is not so. So for any such users of linguistic expressions they could not operate the expressions in conformity with the hypothesis while employing the expressions to reason validly (in application).²⁰¹ In particular, we have found reason to reject the hypothesis as it applies to predicates and their extensions and not just as it applies to NPs and their extensions (something which, perhaps, many already accept for some NPs). Calibration involves changing the application criteria of expressions *so that* whether the referent of an NP falls within the extension of a given predicate changes. In cases in which one aims to reason about the referent of the NP, it is the extension of the predicate that is going to change to enable valid (in application) reasoning. This we have seen in our examples.

This reason for accepting OS slips into neither of the two problems facing Travis' own arguments for the thesis. The argument from cases enters a stymied situation because opponents of OS (if they recognise it is OS they are opposing) propose half-articulated further factor analyses that cannot be tested because of their half-articulation. The current strategy has not been to find counterexamples to each analysis provided by an opponent but instead to find a general reason why any analysis provided should be understood as documenting a transient regularity insofar as it documents substantial extensions. Given the soundness of the argument for this conclusion, we do not have to wait for filibustering analysts to complete their analyses or find somebody else (in another discipline) to do it for them. The two Wittgensteinian arguments, at best, establish only that there is a role for good judgement in using linguistic expressions. But that is not inconsistent

²⁰¹ One might object that to accept the contingency thesis just is to accept OS. But this is incorrect. The contingency thesis concerns application criteria that are available. The hypothesis concerns a regularity in the use of linguistic expressions. The contingency thesis could be true while the hypothesis is also true. In such a case the language users would use the linguistic expressions and reason badly. So the truth of the contingency thesis is not identical to rejection of the hypothesis but it is a reason to expect the hypothesis to be false.

with there being available a semantic analysis that documents a long regularity in the substantial extensions of expressions. If the contingency thesis is true, and if users of linguistic expressions competently use those expressions to reason, then there will be no long regularities in the substantial extensions of expressions. To operate expressions thus would be to adopt a natural language analogue of Hempel's empiricist construal and to reason hazardously.

This argument for OS diverges from Travis' attempts in an important respect. Whereas he plays up the conventionality of an expression's extension, I have attempted to play *down* just that element of the usage of expressions for certain purposes. Like badly built buildings and bridges, badly rigged semantic calculi are bound to collapse not because everyone agrees that that is so but because that is just how the world works.

Nonetheless, I do not think the reason provided here for linguistic expressions of natural languages to exhibit variations in extensions and intensions is knock-down. The principal aim for providing it is to turn the tables on what appears to be a default starting position: the hypothesis. But if application criteria are limited in their capacity to support valid reasoning, then the default starting point should be that speakers have to calibrate semantic calculi for the purposes at hand in the sense of "calibrate" I have attempted to explain in the previous pages.

PART II

CHAPTER V

Stenius' attitude and the incompatibility argument

1 Introduction

Even if we grant that calibration is to be expected and that calibration requires OS, we have yet to explain why OS does not create an explanatory lacuna in the simple model of communication. The remainder of this thesis is an attempt to address this concern. Our task in the current chapter is to understand why there is thought to be an incompatibility between OS and communication.

2 Communication

The critic claims communication is not possible if the hypothesis is rejected. So what shall we understand by the word “communication”? Consider two interlocutors A and B and some state of affairs C, such as A’s flat being on fire. Suppose B is aware of C but A is not. Nonetheless, A is in a position to observe B produce linguistic expressions with properties such as referents, satisfiers, and truth-conditions. When such an arrangement obtains it is possible for A to learn of C by observing B produce sentences. B functions for A as a window onto the part of the world where C obtains. This will be familiar as “the simple model of communication” described in the thesis Introduction. Obviously many other things might be spoken of with the word “communication” but they are not being spoken of here. When the truth-conditions are substantial, the arrangement just described

requires at least that A be able to recognise how things would have to be for the sentences B utters to be true.²⁰²

3 The doubters

We will now collect a sample of those who think that communication is not compatible with the hypothesis' falsity. What reason(s) do they provide for thinking that there is such incompatibility? Eighty years ago Leonard Bloomfield put forward something very much like the hypothesis as none other than "the fundamental assumption of linguistics":

...phonology and, with it, all the semantic phase of language study, rests upon an assumption, the fundamental assumption of linguistics: we must assume that *in every speech-community some utterances are alike in form and meaning*. (Bloomfield 1933 [1979], p.78)

It is made clear in chapter 2 of Bloomfield's book that a "speech community" is to be understood as a collection of individuals whose use of linguistic expressions exhibits long regularities of the kind with which we are concerned. It is also clear that in this passage "meaning" is used to speak of something analogous to substantial truth-conditions.²⁰³ By "utterances" Bloomfield intends to speak of the production of linguistic expressions.²⁰⁴ With these glosses we can see that the passage makes the following claim: there is a long regularity in the substantial truth-conditions of the sentences of a given community of speakers. That is none other than the hypothesis. Bloomfield offers the following reason for adopting this assumption:

In the rough, our assumption is justified by the mere fact that speakers co-operate in a very refined way by means of language-signals. (Bloomfield 1933 [1979], p.158)

If we can safely assume (and I think this much is obvious) that arrangements in which "speakers co-operate in a very refined way by means of language-signals" includes within its remit communication as we defined it then Bloomfield justifies

²⁰² I say 'at least' because other requirements, such as the speaker's competence and honesty may be required for A to learn on the basis of B's production of sounds, marks, or gestures.

²⁰³ See (Bloomfield 1933 [1979], p.27)

²⁰⁴ See (Bloomfield 1933 [1979], pp.22-23)

his adoption of the hypothesis by the existence of communication. The implication is that without the hypothesis' truth, there would be no communication. Bloomfield does not explain why we should think this.²⁰⁵

Erik Stenius makes the same claim as Bloomfield, “[w]ithout *rules* for linguistic usage all linguistic communication is impossible.”²⁰⁶ This claim embodies an attitude, says Stenius, toward language.²⁰⁷ For this reason, I will refer to the purported need for long regularities in the substantial truth-conditions (etc.) of sentences (etc.) for communication to be possible as “Stenius’ attitude.” Unlike Bloomfield, Stenius goes further than merely adopting this attitude. He offers the following argument in favour of it:

If there were no rules of usage common to the speaker and the listener, any utterance in a language could have any meaning whatsoever. So, even though the rules of usage change according to place, time and social group, it is fundamental to all linguistic communication that the individuals speaking with one another should follow roughly the same rules. Any form of linguistics must describe the prevailing linguistic *usage* in some group at some time, and this is exactly the rules for linguistic communication which at that time are valid in this group. Every ‘linguistic usage’ has its rules. I should like to call them its rules for the *correct* use of language. (Stenius 1967, p.258)

²⁰⁵ W. V. O. Quine shares this conception of a linguistic community: a community of the similarly disposed toward linguistic expressions and what counts as a condition of their truth (etc.). If we suppose, as is reasonable, that by “meaning” Quine means to speak of something with the same substance as what we speak of with “truth-conditions,” the opening lines of *Word and Object* simply take it for granted that there are dispositions of this sort which begin their life when one learns the language:

Language is a social art. In acquiring it we have to depend entirely on intersubjectively available cues as to what to say and when. Hence there is no justification for collating linguistic meanings, unless in terms of men’s dispositions to respond overtly to socially observable stimulations. (Quine 1960, p.ix)

See also (Quine 1960, p.27). However, Quine for the most part seeks to justify only the assumption that that to which a speaker’s use of her signs is responsive must be publically available. He does not seek to justify the assumption that there is a regularity in to what speakers apply their signs. He simply takes this for granted. A possible exception is the remark that the uniformity in use of expressions, “comes where it matters socially” (Quine 1960, p.8), but apparently this is not the predominant impetus guiding Quine’s thinking.

²⁰⁶ (Stenius 1967, p.258)

²⁰⁷ (Stenius 1967, p.257)

Let us suppose that an utterance is an instance of a sentence. Then Stenius claims that if there were no “rules of usage common to the speaker and listener” then an instance of a sentence, “could have any meaning whatsoever.” By a “meaning” Stenius means, for sentences, something like substantial truth-conditions: conditions under which the sentence is to be classified as true or as false. Stenius cannot mean here that given that a speaker uses the sentence one way and a listener another (they count different conditions of the world as the truth-conditions of the sentence), the sentence a speaker uses could have any of many different truth-conditions. For in such a circumstance, it has two adequately defined truth-conditions. It may be ambiguous but it does not fail to have any truth-conditions at all. No, the right way to read the proposal is to take the “could” as epistemic. If the speaker and hearer employ the sentences in different ways, then for all the hearer knows, the speaker’s sentences as used by her could have any truth-conditions whatsoever. Stenius cannot however mean that all it takes for the speaker and hearer to be landed in this epistemic predicament is that they employ the sentences in different ways. For if the hearer knew how the speaker used her sentences, despite that usage being different from the way he uses those same sentences, then there is no reason to doubt that he would know what the truth-conditions are of those sentences.²⁰⁸ Furthermore, there is a sense in which speaker and hearer can use a sentence in the same way even though the sentences have different truth-conditions when produced from the mouth of each. A template for this is “I” for which we could say (perhaps incorrectly) that the referent of the expression is the person who utters it. Then two people use it the same way even if the referent is different depending upon who uses it. There could be a community of speakers who use *sentences* whose truth-conditions vary like this. So Stenius must instead mean to describe a situation in which the hearer does not know what the speaker’s rules of usage are, even though she herself uses the expressions with such and such truth-conditions. But if that is all he means, then what he says is trivial. Of course if the hearer does not know how the speaker is using her words, then he does not know how she is using her words. However, once again there is a more plausible reading. The idea is: the hearer cannot identify what rules the speaker is following, and so what the truth-conditions are of the sentences she employs, just by examining her use of the sentences in the communicative episode.

²⁰⁸ It is true that Stenius does not explicitly state that this is not what he is thinking but read reasonably this is what he intends.

So the hearer must know *in advance* what the speaker's rules are if she is to know the truth-conditions of the speaker's sentences when the hearer observes the utterance of those sentences. Otherwise, communication is not possible. This is I think what Stenius is proposing.

This idea is implicit in David Lewis' treatment of language use.²⁰⁹ He proposes that we model communicative exchanges as coordination problems. A coordination problem is, roughly, the following. There are two agents, A and B. There is a recurrent situation in which each has the choice of doing a range of actions $a_1...a_n$. Which action each agent prefers to do depends upon what action the other agent prefers to do: there is a state of interdependent decision between A and B's choices. So we have combinations of actions performed by A and B. If there is more than one equally preferred combination, then on each occasion on which the recurrent situation arises, there is a coordination *problem* because there are at least two options that are equally preferable but somehow A and B need to choose between them.

How is *language use* a coordination problem? Lewis makes the proposal in the following way. Roughly though adequately, a convention (for Lewis) is a solved coordination problem. He says:

A population's common use of some one language—Welsh, say—is a convention. The Welshmen in parts of Wales use Welsh; each uses Welsh because he expects his neighbors to, and for the sake of communication he wishes to use whatever language his neighbors use. (Lewis 1969, p.49)

The recurrent situation is one of communication. The actions available to different interlocutors are the use of linguistic expressions in certain ways (in the case of sentences, to classify them as true or false in certain conditions). Call each way of using linguistic expressions a language. This is a technical use of the word "language"; a fact to which we will return shortly. Each interlocutor prefers to use a given language if the other interlocutor does. But there is more than one language that they could both use. So there is a coordination problem. But hold on. Why assume that interlocutors' preferences are conditional upon the languages employed by other interlocutors? An alternative is that a speaker employs a

²⁰⁹ (Lewis 1969)

language without regard to what the other interlocutor uses, provided the other interlocutor will understand her, whatever her choice is. Lewis considers exactly this objection to his proposal:

Does he not rather wish to use whatever language his neighbours will *understand*? Yes; but as a fact of human nature, he and his neighbors will best understand the language they use. So the right thing to say is that he wishes to use the language they use *because* that is the language they will understand. It follows that this is another case of coordination over time: he wishes to use the language they have been using most over a period in the past, a period long enough for them to have become skilled in its use.”
(Lewis 1969, p.49)

Bearing in mind the technical use of the word “language,” Lewis here proposes that one’s preference to use a language that one’s interlocutors understand just is to prefer to use a language that one’s interlocutor already uses. But this is what is currently at issue. It would not be true if the following were so. The neighbours have a capacity to recognise how the speaker is using her sentences however she is using them, by simply watching her use those sentences, even if they have not been using the sentences in that way. If this were granted, then Lewis’ assumption would be false. So Lewis must be supposing that this cannot be granted. He must be supposing, that is, that one can only know how someone is using her sentences (or more generally linguistic expressions) if she is using them the same way she has done in the past, and one has studied how she has used them in the past.

Before moving on from Lewis, let us briefly return to the fact that Lewis uses the word “language” in the technical way that he does. The proposal that one can recognise how a speaker is using her sentences without having studied her use of them in the past while presuming that she uses the same as she did then, can sound fantastic. It can sound fantastic because it can sound like the following, distinct, proposal is being made: one can understand someone who speaks, for instance, Spanish, despite having never studied Spanish oneself, simply by observing her speak in Spanish. That proposal *is* fantastic. It can look as though our proposal is this proposal because Lewis uses the word “language” in his discussion. The ordinary way to use the word “language” in expressions like, “to speak a language,” is to characterise speaking Spanish etc. But Lewis is not in fact

using the word “language” in that way. He is using the word to speak of using sentences with such and such substantial truth-conditions, for instance. That need not be, and if one is rejecting the hypothesis, will not be, identified with speaking a language in the more ordinary sense of being able to speak Spanish. When this identification is avoided, our proposal is only as fantastic as the proposal that speakers can recognise the truth-conditions of a sentence as used by a speaker on a given occasion of speaking, without the speaker conforming to a regularity in this which the hearer has learnt in advance. One cannot take the difficulty of understanding a Spanish speaker without training in Spanish as evidence against this claim because to do so one must first assume that to speak Spanish is to be in possession of knowledge of the substantial truth-conditions of Spanish sentences. But that is the hypothesis currently up for discussion.

Somewhat more recently, Donald Davidson rejected the hypothesis:

We must give up the idea of a clearly defined shared structure which language-users acquire and then apply to cases. And we should try again to say how convention in any important sense is involved in language; or, as I think, we should give up the attempt to illuminate how we communicate by appeal to conventions. (Davidson 1986, p.265)

Respondents to his proposal adopt Stenius’ attitude. Marga Reimer claims that unless “the meanings [of linguistic expressions] to be discerned [in communication] are grounded in *conventions*, in learned regularities, the hearer will have to engage in impromptu interpretation. And, as we have just seen, such interpretations are sometimes far from successful.”²¹⁰ So Reimer too supposes that an interlocutor cannot simply recognise the truth-conditions of a speaker’s sentences as used by her without great difficulty.²¹¹ Jennifer Hornsby deploys the same attitude:

...prior shared knowledge of what artificial devices mean would seem to be necessary for communication as we know it. (Hornsby 2009, pp.116-117)

²¹⁰ (Reimer 2004, p.324)

²¹¹ She appears to go further than the other three philosophers by alluding to evidence she has that there is this difficulty. The examples Reimer provides to illustrate how impromptu interpretations are sometimes “far from successful” are malapropisms in which she casts doubt on whether we would resolve such mis-speakings easily in real circumstances. I think such evidence indicates only that there are cases and cases, as reflected in her hedge, “sometimes.”

If we can suppose “mean” is here being used to speak of, for sentences, substantial truth-conditions, she is claiming that the hypothesis must be true if communication happens. To support this contention Hornsby draws a Gricean distinction between natural and non-natural meaning. The distinction is illustrated in the following way. The 96 tree rings mean that the tree is 96 years old. If it turns out that the tree is not 96 years old, then the 96 tree rings do not mean that the tree is 96 years old. This is natural meaning. The three rings of the bell on the bus mean that the bus is full. But if it turns out that the bus is not full, the three rings on the bell still meant that the bus is full. This is non-natural meaning. Grice proposed that the sense in which a linguistic expression means something is to be modelled on the latter as opposed to the former. The sentence “Putting financial power into the hands of learners makes student choice meaningful” is meaningful even if putting financial power into the hands of learners does not make student choice meaningful. Hornsby claims that we cannot rely on natural meaning when communicating with linguistic expressions. So, we must rely instead on the non-natural meaning of sentences as understood by interlocutors prior to the exchange.²¹² That is her justification for adopting Stenius’ attitude. But, supposing that we do have to rely upon non-natural meaning rather than natural meaning in linguistic communication, for that to entail adoption of Stenius’ attitude, it needs to be further supposed that the only viable way to recognise non-natural meaning is by becoming aware of a regularity between non-natural meanings and linguistic expressions. Hornsby supports this assumption by the following consideration. When the natural meaning of an item present in the conversational circumstances cannot be used to get someone to recognise what one wants them to think (communication consisting in getting someone to think something) communication becomes difficult. But, communication with linguistic expressions is not difficult. Hence something must take up the slack. This something is shared knowledge of the non-natural meaning of the linguistic expressions. Unfortunately, no argument is given for thinking that this is the only option.²¹³ So Hornsby’s discussion gets us no further than the assumption that recognising the truth-conditions of sentences is not something that can be easily done unless there is a regularity in the use of

²¹² (Hornsby 2009, p.116)

²¹³ Hornsby’s discussion is intended only “*to make it plausible* that shared knowledge of meaning is necessary for linguistic communication as we know it” (ibid, p.114, emphasis added).

those sentences and their truth-conditions which has been learnt in advance of the communicative exchange.

In a yet more recent literature Stenius' attitude can be found again. This skirmish concerns the degree to which sentences' truth-conditions change from instance to instance. Jason Stanley sides against those who claim there is a great degree of context-sensitivity because (he thinks) the possibility of communication is threatened. He calls a rejection of the hypothesis, "the pessimistic view":

On this view, there are ever so many reasons why utterances have the intuitive truth-conditions they do, and nothing of great import to say about what unifies these disparate explanations...On the pessimistic view, there is stability to word meaning and the significance of the syntactic structure of sentences. But in general there is no systematic way of going from the meanings of the words in a sentence and its syntactic structure to the intuitive truth-conditions of its various utterances. (Stanley 2007, p.8)

About the pessimistic view he says this:

If any version of the pessimistic view were correct, significant facts about linguistic communication would be inexplicable. From an utterance of a sentence, one gains information about the world. If Hannah utters to Esther the English sentence "There is some chocolate in the kitchen", and if Esther wants chocolate, she will go to the kitchen...If there is no systematic way of proceeding from knowledge of the extra-linguistic context and knowledge of the meaning of the individual words and modes of combination into sentences to a grasp of the information about the world that is conveyed by an utterance of a sentence, it is mysterious how language-users could so smoothly move from linguistic comprehension to action. In short, if the pessimistic view were correct, the connection between speech and action would be inexplicable. (Stanley 2007, pp.8-9)

Given that the pessimistic view is one according to which there is nothing general to say about the truth-conditions of instances of sentences, and given that "systematic way of proceeding..." etc. is supposed to be a gloss on what the pessimistic view denies, Stanley is here expressing Stenius' attitude. He is claiming that it would be "mysterious" how communication is effected if there were

no long regularity between some “information about the world” and a sentence. It is the talk of an association between “information about the world” and a sentence which lets slide that Stanley’s concern here is with substantial truth-conditions.

In the same literature Cappelen and Lepore present an argument against the position they call “radical contextualism.”²¹⁴ Even though it is not quite Stenius attitude, because they may be thought to be prime upholders of that attitude I will nonetheless describe this argument. According to the radical contextualist, there are n factors over and above the linguistic expressions employed which are determinants of the truth-conditions of sentences. Unfortunately, many of these factors are not available to a hearer in a communicative exchange. Hence, if the radical contextualist were correct then the hearer should not be able to ascertain the truth-conditions of the sentences produced. But she can. So the radical contextualist is not correct.

The target here is not a rejection of the hypothesis but instead of an acceptance of a particular version of the hypothesis, viz. a psychological further factor view with a commitment to the hypothesis. In constructing their Frankenstein category, “radical contextualism,” Cappelen and Lepore classify OS alongside such a view. As was argued in Chapter I, these views are not even consistent and should not be placed under the same banner. Nonetheless, the concern raised is that the further factors posited are not recognisable by the hearer. It is because of that that the view is thought incompatible with the possibility of communication. In this respect, it is similar to the concern raised by the other doubters: what is available to the hearer when a speaker speaks underdetermines what the extensions are of the speakers’ words. I have little doubt that if they became aware of the difference

²¹⁴ (Cappelen and Lepore 2005, chapter 8). They offer several other arguments against “radical contextualism.” One can be found in (Cappelen and Lepore 2006) and (Lepore 2010). The argument is that in one circumstance of speaking someone can use a sentence with given truth-conditions, and then in another circumstance someone can use the same sentence with the same truth-conditions. Surely that is true. They think this should not be possible given the truth of certain theories because of the differences in the circumstances. According to Cappelen and Lepore, differences in circumstances *force* the sentence to have different truth-conditions in each case. I struggle to see how Cappelen and Lepore came to take this worry seriously. There would be the forced shift of truth-conditions only if there was not more than one kind of circumstance that would make a sentence have given truth-conditions. If many different circumstances would lead to the same sentence having the same truth-conditions, then there is simply no reason to think that differences in circumstances *force* shifts in truth-conditions. But then there is no problem of so-called “shared content” on the grounds Cappelen and Lepore provide.

between OS and the other views they classify as “radical contextualist” they would maintain Stenius’ attitude. But that is not what Cappelen and Lepore have done in print.

4 The incompatibility argument

In our sample there is a recurring theme. It is being supposed that what takes place in a communicative exchange would not be a suitable basis upon which to identify the truth-conditions of a sentence if there were no regularity in the truth-conditions of the sentence across productions which could be learnt by fellow interlocutors in advance of an exchange in which the sentence is used to communicate. None of the doubters go into much detail about just why the absence of such a regularity would make the truth-conditions of a sentence unrecognisable to fellow interlocutors. However, both Lewis and Hornsby focus on the conventional nature of the truth-conditions of a sentence: that there is nothing about a sentence which endows it with the truth-conditions it has other than that speakers treat it that way. I will now present an argument by which the doubters are guided. Its key premise will be supported by appeal to the conventional nature of truth-conditions (etc.) of sentences (etc.).

To help us state the argument I will introduce two terms. The activity of speaking is for present purposes the production of a sentence. We are interested however in the role of speaking in communication. Given what communication involves, if A produces a sentence by means of which she communicates with B, A’s uttered sentence must have conditions of truth. This is often spoken of as the making of an assertion or a statement or a claim or as expressing a proposition. I mean to speak of nothing more than what is involved in the production of a sentence with such and such truth-conditions to engage in communication. Let us say that for a speaker to produce a sentence in this sense is for there to be a *speaking episode*. This is our first term.

Hornsby laid emphasis on a distinction between natural and non-natural meaning, placing the meaning of linguistic expressions into the latter category. Without deploying Grice’s distinction, for the purposes of the forthcoming argument, this point should be acknowledged. I will put the point like so: the sentence produced in the speaking episode has some of its properties non-essentially. A property is non-essential if the object can lack that property and still be what it is. Included within

a linguistic expression's non-essential properties is its extension: a sentence's condition of truth, a predicate's satisfiers, a referring expression's referent(s).²¹⁵

If a sentence's truth-conditions are a non-essential feature of a sentence then a sentence in itself is not a basis upon which to identify its truth-conditions. At least when one does not speak a language, one cannot determine the truth-conditions of a sentence (or indeed, the referent of a name or the satisfiers of a predicate) by examining the sentence. To try to identify the truth-conditions of a sentence would be like trying to ascertain whether the coffee cup is to the left of the tea mug by inspecting only the coffee cup. Though being to the left of the tea mug may be a property of the coffee cup, the condition of the coffee cup within its spatial boundaries is not what makes the coffee cup have this property. So far as that is concerned, it is left quite open whether the coffee cup has this property. Inspecting a sentence in a similarly blinkered way will not yield its truth-conditions. There is nothing about a sentence *qua* form of sound or mark that makes it have the truth-conditions it does.

The other term I want to introduce is *classificatory disposition*. A speaker's classificatory disposition is her tendency to count given items as the referents of referring expressions, given items as the satisfiers of predicates, and given conditions as the conditions of truth and falsity of sentences. This is what one would try to describe if one was in the business of producing models for a formal semantics which document the substantial truth-conditions of sentences. In supposing there is such a thing I make no commitment about the regularity's longevity. Nor do I intend to adopt any particular theory of meaning. Our interest in a classificatory disposition lies in how we glossed communication earlier. To communicate there has to be such a thing as what a speaker would count as making her sentence (one produced in a given exchange) true. Otherwise you have the following problem. Suppose she comes to know that such and such is so and she wants to communicate that this is so by producing a sentence with such and such truth-conditions. If she does not know what the truth-conditions are of the sentence then she would not know what sentence to produce to do this. So a speaker has to know what would make true a sentence she produces if communication is to be possible. She needs to know this so she can claim to be so what she knows to be

²¹⁵ See (Austin 1950, pp.118-119), (de Saussure 1916 [1983], p.67), and (Locke 1689 [1975], p.405).

so.²¹⁶ That there exist some such dispositions cannot be altogether controversial given that many think that such things can be documented or employed to arbitrate arguments by students of language about how language works (to speak broadly).

I want now to expand what is to be included in a speaking episode. The expansion is called for because there are more items in it to which a classificatory disposition is typically thought sensitive than the sentence produced therein. There are three further elements to be considered though only two will be admitted into the speaking episode and only one of those will be relevant to the truth-conditions of a sentence.

The first addition is force.²¹⁷ A given sentence can have truth-conditions but vary along the following dimension: it can be a suggestion, an assertion, a question, a command, and so on. The standard view is that this sort of variation does not interfere with the truth-conditions of the sentence employed: content and force are mutually autonomous. Because such a feature is independent of the truth-conditions (etc.) of a sentence (etc.) we can ignore it in what follows. The second addition is (the further factor conception of) context. Across different productions of a given sentence, used to speak of the same item, and with no change in the item spoken of, there can be changes in whether the sentence is classified by competent users as true. A further factor view introduces factors beyond the words and syntax of a linguistic expression as factors relevant to the truth-conditions of sentences. We have seen all this before in Chapter I. What, in addition, is worth noting is that the contextual factors stand to the sentence as do its truth-conditions: they are relevant to the truth-value of the sentence only because speakers are disposed to modulate (in a sense totally unrelated to Recanati's use of the term) the truth-value of a sentence relative to various features of the circumstance. That I count

²¹⁶ Travis' (1989, p.32) view allows that words as produced by an individual on a given occasion, can change in their truth-conditions, satisfiers, and extension across different occasions for *evaluating* those words. My talk here of a speaker's classificatory disposition might seem incompatible with that because it seems to give only the speaker the capacity to determine these features of her words. However, firstly, this is so only if she is skilled. What her words do is not a matter merely of what she intends to do. Secondly, in the case of communication, the requirement that the speaker be aware of how her words are to be operated is important in a way which undermines the kind of example Travis uses to illustrate his evaluation sensitivity. For in those cases we have to ignore what the speaker may have been trying to say with her words altogether. But that is precisely what one ought not to do if communication is taking place.

²¹⁷ Cf. (Green 2007) for an overview.

the sentence “I am standing” true at one moment and then false at the next is as little an inherent feature of it as a truth-condition minus such relativisation. Henceforth when I speak of a classificatory disposition I mean to include in this disposition the relativisations that are typical of further factor views of context-sensitivity.

The third and final addition is “speaker’s intention.” Grice (1957) floated an idea that has caught on. He proposed that sentences mean things because speakers intend things by them. What do they intend? The intention in question is: to intend that someone form a belief that *p* by recognising that one intends them to believe that *p*. A sentence is produced to make this intention recognisable. The truth-conditions of the sentence are the truth-conditions of the belief that *p*. It is because there is regularity in the use of sentences as having such and such truth-conditions that one’s intention can be made plain to another. Hence, such a view is a version of the hypothesis and, surprise surprise, it is offered to explain how communication is possible. So it is not consistent with rejection of the hypothesis. For this reason, it is not to be supposed in the current discussion.

One could maintain that a sentence has the truth-conditions of a belief that a speaker intends someone to form by recognising that the speaker has this intention by way of recognising the sentence produced but drop any commitment to the hypothesis: there is no regularity in what is intended by uttering certain sentences. However, it would then become puzzling why the sentence (given the non-essentiality of its truth-conditions) would make the intention recognisable. So why would someone utter a sentence to make recognisable their Gricean intention? We could drop the commitment that the recipient of the sentence is supposed to determine the intention *by means of the sentence produced*. The resulting view would be that an instance of a sentence has the truth-conditions of the belief that the speaker intends the recipient to form by means of recognising that the speaker has this intention. This I think we could accept as part of the speaking episode without prejudging whether the hypothesis is true. But I do not think it is true: a speaker can produce a sentence which has truth-conditions other than what she intended. For instance, suppose I try to inform Ralph Cotter of something but I mistake two names for one another. I utter the sentence, “Robert Syverten did the deed” but I intend Cotter to form the belief that Henry Chinaski did the deed by recognising my intention that he do so. I think Henry Chinaski is Robert Syverten.

Suppose Cotter finds out about this and he has me in the grip of a vice. He accuses me of telling him something false. He says, “You told me that Syverten did the deed. But it was Chinaski.” All I can say is that I intended to say that Chinaski did it. I got their names confused. I cannot truly say that I did not say what Cotter thinks I said.²¹⁸ In such a case what I intended and what I did diverge. Thus, the truth-conditions of the relevant belief can come apart from the truth-conditions of the sentence as then uttered. Hence, what a speaker intends to say does not determine what they say. As with any action, they have to speak competently if what they intend and what happens is to coincide. Furthermore, for this reason a speaker’s intention should not be identified with a classificatory disposition. In the cases envisaged, the speaker classifies the expressions produced in ways that diverge from what was intended. Hence his classificatory disposition diverges from what he intends.

We could add to the speaking episode that the speaker is attempting to communicate something. If we are speaking of a speaker in a speaking episode who is attempting to communicate, then sure enough, there is a speaker present who is attempting to communicate. That seems innocuous enough.

4.1 The argument

With these terms (“speaking episode” and “classificatory disposition”) we can walk through an argument for Stenius’ attitude:

The Incompatibility Argument (TIA)

- 1) A and B can communicate only if the speaking episode does not underdetermine the classificatory disposition of the speaker. (assumption)

Recall that a speaking episode includes: a sentence produced; some further factors; and the force of the utterance. There are (long, transient or whatever) regularities between sentences, further factors, and the substantial truth-conditions of the sentences. Such a regularity in a speaker’s behaviour is a classificatory disposition of that speaker. The relata of this relation which are not truth-conditions of sentences form the elements of the speaking episode. If sentences have their truth-

²¹⁸ The example can be reworked for the switches in extension of predicates across different uses. There is nothing special about the fact that names were confused here. The simple fact is that, as with all action, what one does and what one intends need not coincide.

conditions non-essentially then, for all that takes place in their production, nothing requires that a speaker have one classificatory disposition over any other toward the sentence produced. This is in two respects. First, there is nothing materially about expressions which requires one truth-condition rather than another. We have recognised this in registering that the truth-conditions of a sentence are non-essential features of it. Second, given that a speaker aims only to communicate, and given what communication is as we have glossed it, there is no reason a speaker has to use a sentence with one truth-condition rather than any other. Hence, as well as there being no material constraint provided by the speaking episode on the truth-conditions assigned sentences by the speaker, there is also no reason that a rational speaker would use a sentence with a given truth-condition if there is no long regularity in the substantial truth-conditions of sentences.

An apparent exception is this. If her interlocutor uses sentences with certain truth-conditions then, if she aims to communicate with this interlocutor, she would do well to use the same sentences with the same truth-conditions her interlocutor uses them with: she has reason to do so. However, if we really are rejecting the hypothesis then we should suppose that there is no regularity in how her interlocutor uses sentences either. But then the problem facing her is also facing her interlocutor.²¹⁹ So the true state of affairs, given an absence of a (long) regularity in the substantial truth-conditions of sentences, is that she cannot rely on how the other interlocutor is using her sentences because there is no general way her interlocutor is using the sentences.

Grant all this. Then as far as what happens within the speaking episode is concerned, the speaker could possess any of many classificatory dispositions toward the sentence produced. We can paraphrase this by saying that if the hypothesis is false then the speaking episode underdetermines the classificatory disposition of the speaker. This is our *reductio* premise:

- 2) The speaking episode underdetermines the classificatory disposition of the speaker. (assumption)

From these two premises we can easily derive a devastating conclusion:

²¹⁹ This is the basis upon which (Lewis 1969) builds his account of language use as conventional.

3) It is not the case that A and B can communicate (modus tollens, (1) and (2)).

Because rejection of the hypothesis commits us to (2), rejection of the hypothesis appears to commit us to the impossibility of communication. For us to reject assumption (1), we would need to show that communication is possible even though what is available to an interlocutor in a speaking episode underdetermines the classificatory disposition of the speaker towards her expressions and hence the substantial extensions of the sentence produced. But communication, as we are understanding it, just is for a hearer to ascertain the truth-conditions of a sentence produced in a speaking episode and that cannot be done if there is underdetermination of the speaker's classificatory disposition by the speaking episode.

One may feel uneasy about premise (1) because of the supposed connection between the extensions of expressions and the classificatory disposition of the speaker. This for two reasons: firstly, because it may lead to Humpty-Dumpty tendencies; secondly, because it may not leave room for a difference between speaking correctly and speaking *simpliciter*. As against the first concern note the following. Firstly, as was explained earlier, what the speaker may intend and her classificatory disposition need not coincide. On the current view one cannot, without skill, make words have extensions just by intending them to do so. Secondly, although the words employed do not establish an extension or relativised extension, it is not being denied that one cannot use "girl" to speak of crustaceans, for instance, and still speak English (properly). The second concern requires there to be a way to use words incorrectly. But we have two: firstly, the words can be misused if one violates whatever constraints they provide on their usage; secondly, that the speaker can fail to do what she aims to do introduces a difference between what she does and what it would be rational for her to do and hence introduces a difference between correctly using a word and how she actually uses such. The close association of classificatory disposition and extensions of produced expressions that is supposed in premise (1) does not in itself warrant the relevant unease.

What about premise (2)? The warrant for this assumption is that there is nothing about sentences which makes them have the truth-conditions they do. They have them because of how speakers treat them. But if there is no regularity in how

speakers treat them then across the time for which there is no such regularity, there is nothing about the speaking episode(s) which places any constraint on with what classificatory disposition a speaker operates a given sentence. So for all that takes place in the speaking episode, any of many different classificatory dispositions could be had toward the sentence produced therein.

Our doubters each suppose that someone would not be able to tell what the truth-conditions were of a sentence if there were no regularity of the pertinent sort. So, albeit with a little sharpening, each doubter supposes that premise (2) follows from the hypothesis' falsity. Thus, by way of TIA, we can see why the doubters would think the possibility of communication is not consistent with the hypothesis' falsity. If the hypothesis is false then the speaking episode underdetermines the classificatory disposition of the speaker because it provides neither material nor rational constraints sufficient to constrain the classificatory disposition to uniqueness. But if that is so, then a hearer cannot discern what the classificatory disposition the speaker has towards the sentence she utters. But then the hearer cannot know what to expect if that sentence is true given what she has to go on from the speaking episode. Communication is in peril.

CHAPTER VI

Two failed inflations of the speaking episode and one with potential

1 Introduction

The plausibility of premise (2) of TIA depends upon our assumptions about the speaking episode: what is in it and what constraints it places upon the classificatory disposition of the speaker. One way to criticise the premise is to question the accuracy of the gloss of the speaking episode we used to defend it. For this reason we will investigate whether we have omitted important elements of the speaking episode which would make a difference to what classificatory disposition a speaker could have in operating the sentence. Are there elements of the speaking episode which, were they included in our gloss of it, would give the speaker reason to use the expressions she does in one way rather than another? In this chapter we will discuss three proposals about what might be missing. The first proposal can be found in Austin's work on speech acts. The only notion of force that we considered in the previous chapter was one that had nothing to do with truth-conditions (and more generally, extensions). Austin's conception of force is not of this sort. Does Austin's conception of force make a difference to premise (2)? We find the second proposal in McDowell's critique of a Dummettian argument for semantic anti-realism. McDowell attacks Dummett's gloss on speech behaviour. This attack could be deployed against our gloss on the speaking episode. However, both Austin and McDowell's proposals will be found to be inadequate for dislodging premise (2). It is a second proposal we find in McDowell's work that proves much more promising and will be developed into an objection to the premise in the next chapter.

2 Austin's speech acts

As everybody who has heard of him knows, Austin distinguishes between various aspects of speaking, some of which extend beyond the production of linguistic expressions. One aspect he calls a "locutionary act." It is introduced as follows:

...the utterance of certain words in a certain construction, and the utterance of them with a certain 'meaning' in the favourite philosophical sense of that word, i.e. with a certain sense and with a certain reference. (Austin 1975, p.94)

Austin calls a second aspect of speaking the "illocutionary act" which he introduces by example thus:

When we perform a locutionary act, we use speech: but in what way precisely are we using it on this occasion? For there are very numerous functions of or ways in which we use speech, and it makes a great difference to our act in some sense...in which way and which *sense* we were on this occasion 'using' it. It makes a great deal of difference whether we were advising, or merely suggesting, or actually ordering, whether we were strictly promising or only announcing a vague intention, and so forth. (Austin 1975, p.99)

To perform an illocutionary act is at least to have performed a locutionary act. But not vice versa. At what point (the locutionary act, the illocutionary act, or something else?) has one produced something that has substantial truth-conditions? Some philosophers suppose that Austin intended this point to be the locutionary act. The illocutionary act is then an add-on that does not affect the truth-conditions of the sentence produced. Variation in the illocutionary aspect of a speech act is variation in whether the words are a question, a command, a supposition, a statement, and various other things. But this variation is not variation in truth-conditions. This is what we referred to as "force" in the previous chapter. For instance, Searle depicts the determination of truth-conditions as an entirely separate matter from the determination of illocution.²²⁰ He is one example.

²²⁰ (Searle 1968, p.420)

Notice however that no other possibility is considered on the Stanford Encyclopaedia of Philosophy entry on speech acts.²²¹ This view is a dominant view.

Austin's locutionary-illocutionary distinction is not to be identified with the distinction between something sufficient for there to be truth-conditions of the sentence produced and a mood-like illocutionary force.²²² Such a view is inconsistent with Austin's own remarks on the distinction. He is entirely explicit that truth-conditions, on his view, are not determined once there are in place meaningful words in proper syntactic combination. One statement to this effect is from his article 'Truth':

...“proposition” is sometimes used in a special way for “the meaning or sense of a sentence or family of sentences”: but whether we think a lot or little of this usage, a proposition in this sense cannot, at any rate, be what we say is true or false. (Austin 1950, p.113)

I do not see how this can be read in any way other than as saying that so far as the meaning or sense of a sentence goes, various different things that are true or false could be in place. The same point is repeated in *How to Do Things with Words*:

²²¹ (Green 2007)

²²² (Searle 1968, p.420) explicitly doubts his own reading of Austin. Furthermore, Searle's own reason for adopting his favoured distinction is poor. He proposes that there are sentences (e.g. "I hereby promise that I will do it") which determine an illocutionary force so that there is no difference between performing a locutionary act and performing an illocutionary act with such sentences. In response to this one can readily say: but of course you can fail to perform an illocutionary act without failing to perform a locutionary act. Searle replies to such a response by saying that to appeal to such considerations in drawing a locutionary/illocutionary distinction one would reduce the distinction to one between trying to perform an illocutionary act and failing, and trying to perform an illocutionary act and succeeding. In response to this one can say two things. Firstly, so what? More is required for one to do an illocutionary act than a locutionary one. That is still of interest. Second, Searle's example here is not convincing. One could ask a question, for instance, with "I hereby promise that I will do it." In response to this second response Searle will add to his initial proposal that there are no locutionary acts that are not illocutionary acts (Searle 1968, p.412). In defence of this claim he directs us to Austin's description of a locutionary act as a rhetic act and in giving examples of rhetic acts uses indirect quotation where he at other points uses indirect quotation to contrast illocutionary and locutionary acts (Searle 1968, pp.410-411). But this is beside the point. A rhetic act / locutionary act is to produce words with given meanings whereas to do an illocutionary act is do something more than that. Austin may have been less than careful (in his *notes*) when offering illustrations of the contrasts but this should not lead us to ignore the more explicit explanations that he offers of those same contrasts; namely, that things can go awry for an illocutionary act while leaving the locutionary act intact.

The truth or falsity of a statement depends not merely on the meanings of words but on what act you were performing in what circumstances. (Austin 1975, p.145)

Although it does not greatly matter (because the mention of circumstances already makes the point), it is nonetheless clear that the “act you were performing” is not to be identified with a locutionary act. That was defined by Austin as the production of meaningful words.²²³ So what distinguishes two locutionary acts is the meaningful words produced. But read so as to say *that* we would have to make the mention of what act you were performing in this passage to be redundant. Assuming that it is not redundant, it is more reasonable to take him to speak of an illocutionary act. But nor is it correct to read “what act you were performing” as having a contrast class of statements versus questions versus commands etc. The contrast class is between different statements or statings. This is clear from the fact that in the passage Austin is talking solely about the “truth or falsity of a statement” and not of the truth or falsity of something made in the performance of some variety (statement, or question, or command, or supposition or etc.) of illocutionary act.

What perhaps makes it tempting to read Austin in the way Searle, for instance, does, is that Austin identifies the meaning of a sentence with what he calls their “sense” and “reference”, and those terms are commonly understood in analytic philosophy as concerned with truth and truth-conditions. However, notice that he explicitly uses the word “sense” in the quotation from ‘Truth’ to speak of something that does *not* determine truth-conditions. The fact that Austin uses *those* words should not override what he is rather explicit about.

Our interest in what Austin has to say about speaking episodes is not in the differences between statements and, say, questions. Our interest is in what more he says needs to be in place in order for someone to have produced a sentence with given truth-conditions (which Austin thinks includes things that can be called “statements”), over and above the production of meaningful words in proper syntactic combination.

²²³ (Austin 1975, p.94)

2.1 Austin's method and observations

Austin describes his method for studying the production of linguistic expressions as follows:

Besides the uttering of the words of the so-called performative, a good many other things have as a general rule to be right and to go right if we are to be said to have happily brought off our action. What these are we may hope to discover by looking at and classifying types of case in which something *goes wrong* and the act of—marrying, betting, bequeathing, christening, or what not—is therefore at least to some extent a failure: the utterance is then, we may say, not indeed false but in general *unhappy*. (Austin 1975, p.14)

...typically we distinguish different abstracted 'acts' by means of the possible slips between cup and lip, that is, in this case, the different types of nonsense which may be engendered in performing them. (Austin 1975, p.146)

He engages in a reverse engineering of the things we do when speaking: he is faced with a mechanism whose boundaries and components he is unsure of. So he disables elements of the scene in which the speaking episode takes place and he watches to see what effect this has, if any, on the episode itself.

Let us review some of Austin's results collected with this method.²²⁴ Firstly, statements can be made when one does not believe them. However, this is for a statement to be inadequate in some sense. Austin takes this to mean that a statement, for it to be happy, must have a truth-condition that the speaker takes to obtain. Secondly, a statement commits one to "saying or stating" other statements. Presumably this does not mean that one must actually make the other statements. That is obviously false. Presumably Austin means that commitment to some statements commits one to the truth of others (his example: "The cat is on the mat" and "the mat is under the cat"). So once again, presumably, if one commits oneself to the negation of some such other statement then there is something unhappy about one's statement. Thirdly, there are statements that include terms which purport to refer but do not. For the statement to have gone well, what is purportedly referred to must exist. Fourthly, one can make a statement in which

²²⁴ (Austin 1975, pp.136-144)

one is not in a position to know what one states to be so. Austin puts this by saying that one can only be “guessing or conjecturing,” as if this were not compatible with stating. So presumably, he has in mind a notion of statement such that to have made a statement entails that one was in a position to state how things are. The boundaries of a speaker’s awareness appear to constrain what she can be doing in uttering certain words. Someone cannot be indicating how things are somewhere if there is no way they could be aware of how things are there. A second respect, that Austin indicates, in which the speaker’s awareness is relevant to what she can be doing in uttering words is to what one could have been referring. If one is totally unaware of purple swans on Mars, and one makes a claim that no swan is purple, then if someone were to later discover Martian swans, one could respond by saying that one was not talking about *those*, and that might well be an acceptable defence of the truth of one’s statement in spite of the presence of the Martian swans. Fifthly, one can misspeak. One can say something one did not mean to. The only variety of misspeaking that Austin considers is selection of the wrong word (“cat” rather than “bat”). This suggests that when producing words, it is not the case that things went well as regards the words one uttered just so long as one produced *some* statement or other when one uttered one’s words. Sixthly, there is a need, claims Austin, to secure “uptake.” This is worth a comment. Some have taken the requirement of uptake to be a condition that must be met for there to have been an illocutionary act *whatsoever*.²²⁵ What Austin actually says is this:

Unless a certain effect is achieved, the illocutionary act will not have been happily, successfully performed. This is not to say that the illocutionary act is the achieving of a certain effect. I cannot be said to have warned an audience unless it hears what I say and takes what I say in a certain sense. An effect must be achieved on the audience if the illocutionary act is to be carried out. How should we best put it here? And how can we limit it? Generally the effect amounts to bringing about the understanding of the meaning and of the force of the locution. So the performance of an illocutionary act involves the securing of *uptake*. (Austin 1975, pp.116-117)

True, Austin does say, “An effect must be achieved on the audience if the illocutionary act is to be carried out.” But he also speaks of what is required for an

²²⁵ E.g. (Langton 1993), who has come in for some criticism because she has adopted this view.

act to be *successfully* or *happily* carried out and that leaves room for reading him as allowing that *something* more than a locutionary act took place (perhaps an unsuccessful warning, or a badly done warning, or an inept warning) despite the failure of uptake. There is no need to attribute an all-or-nothing view to Austin on this matter. Uptake is required for *happiness* but not necessarily for existence. Seventh, a statement can be evaluated for correctness in ways other than its truth or falsity. We can ask whether it is accurate or an exaggeration, for instance. These are further ways of being unhappy. Finally, and perhaps most promisingly, the truth-conditions of a sentence depend upon the intents and purposes of the speaker who utters it; they can change with changes in these.

2.2 Conventions and after-effects

A problem with most of these observations for our purposes is that they concern the happiness of a statement and not its truth-conditions. So even if we expanded the speaking episode to include them, they would not (at least not automatically) constrain the classificatory disposition of the speaker. The exception is the relation between truth-conditions and intent and purpose. However, the objection I want to make encompasses even that relation.

Austin restricts to two categories that more which can be done in or by uttering words. These categories coincide with his illocutionary and perlocutionary distinction. We will get to the perlocutionary in a moment. First note that what more takes place in an illocutionary act over and above the production of expressions is in a sense, conventional.²²⁶ There is room for discussion in how the word “conventional” is to be understood in Austin. Let us distinguish two ways it could be understood. Firstly, one might mean to say that something is so in virtue of a “construction put on it by judges.”²²⁷ Whether a wall is a goal depends upon whether certain judges classify it as such in (and for) their game of football. Judging it to be so makes it so. This contrasts with (to jump ahead just a little) what effects are brought about by producing certain sounds (e.g. that a crying baby on the train quiets). By judging that *it* is so, I cannot thereby make it so. It is something beyond the powers of stipulation. Secondly, one might mean something more like Lewis’ proposal, which adds to the first idea a presumption of longevity

²²⁶ Cf. (Austin 1975, p.103, p.107, pp.115-116)

²²⁷ (Austin 1975, p.116 fn1)

across different occasions.²²⁸ That a given wall is a goal for a given game of football does not entail that it ever be or have been used as such another time. But it would still for all that, and in our first sense, be conventional. I cannot discern anything in Austin's words that suggests the stronger commitment. But there are remarks (like the footnote quoted a few sentences ago) which indicate that the first idea is in play: such and such things are the way they are because they are treated as being that way. So that more which takes place when one utters words and one performs an illocutionary act is sufficient for one to have performed the illocutionary act because that utterance of words so counted *by convention* in the first, weaker, sense.

That is one category of that more which takes place when someone speaks that Austin notes. In addition there is the *perlocutionary* act. Austin introduces it like so:

Saying something will often, or even normally, produce certain consequential effects upon the feelings, thoughts, or actions of the audience, or of the speaker, or of other persons: and it may be done with the design, intention, or purpose of producing them...We shall call the performance of an act of this kind the performance of a 'perlocutionary' act... (Austin 1975, p.101)

...the perlocutionary act which is *the achieving of certain effects* by saying something. (Austin 1975, p.120)

For instance, one might utter the words, "I think his ego would take a real smashing" and thereby persuade him to keep quiet about his success. So by uttering the words I achieve some effect on him. This is to be contrasted with an illocutionary act in that that more which takes place is a non-conventional *consequence* of a locutionary and illocutionary act: that the effect followed is not made so by convention.

So there are two categories into which Austin divides that more which can be done when someone utters words: there are, in the first weaker sense, conventional additions to uttering words and there are after-effects of uttering words. The question is now whether speaking episodes thus embellished place any constraints on what

²²⁸ (Lewis 1969)

classificatory disposition a speaker could have toward a sentence he produces in a speaking episode.

Take the illocutionary aspect of a speech act. This (including the relation of intents and purposes to an uttered sentence's truth-conditions) is conventional in the sense that what one did in uttering certain words is so because classified as such by (competent) speakers. But then whatever more is added in this way to the speaking episode, there is no reason to expect some element to bear upon the truth-conditions of the sentence uttered in one way rather than another, other than how interlocutors *treat* it as so bearing. But if there is no regularity in that that could be learned in advance (as per rejection of the hypothesis), then the considerations in favour of premise (2) of TIA apply equally to the relation between a speaking episode thus expanded and the classificatory disposition of the speaker. So admitting an Austinian illocution into the speaking episode cannot help us dispose of premise (2).

What about perlocutionary acts? Suppose a speaker aims to bring about a given effect—to perform a given perlocutionary act. Let us set aside certain effects one could achieve by producing an expression. For instance, deafening someone, or annoying someone by producing sounds when they are trying to concentrate on something else. In achieving these effects the truth-conditions of the sentence produced are idle. Let us focus on those effects achieved by means of the recognised truth-conditions of the sentence produced, that is, by means of the performance of an illocutionary act. Of the relation between the illocutionary and the perlocutionary, Austin says this:

...we may entirely clear up whether someone was arguing [an illocutionary act] or not without touching on the question whether he was convincing anyone [a perlocutionary act] or not. (Austin 1975, p.103)

But then the only addition to the speaking episode contributed by the perlocutionary aspect depends upon there being, *already in place*, truth-conditions of the sentence and hence a classificatory disposition with which the sentence has been wielded. As Austin's remark indicates, this is something which is in place whether or not the relevant after-effect is achieved. Hence, there is nothing about the perlocutionary aspect of a speech act which constrains the classificatory disposition which the speaker has toward the sentence produced. So as with the

illocutionary aspect, the perlocutionary aspect is also of no help in disposing of premise (2).

Although Austin helps us recognise that more takes place in speaking than might at first be acknowledged, because he analysed this into the conventional and the after-effect, his observations (thus presented, at least) are of no help to us.

3 McDowell on Dummett on speech behaviour

McDowell attacks Dummett's construal of linguistic behaviour. Dummett claims that a speaker cannot exhibit, in her linguistic behaviour, knowledge of the truth-conditions of a sentence if that sentence is undecidable.²²⁹ But because such sentences are nonetheless meaningful, and because meaning must be fully manifestable in linguistic behaviour, their meaning cannot be identified with truth-conditions.²³⁰ McDowell concedes that this is so if one means by "linguistic behaviour" the assenting and dissenting to claims of the truth of a sentence in observable circumstances. But he denies that one need restrict "linguistic behaviour" to this.²³¹ In its place he proposes that linguistic behaviour can include *asserting that something is so*. Might we adopt this suggestion for our purposes?

The proposal would be to locate within the speaking episode something (an assertion) which ensures that the sentence uttered in the speaking episode has a determinate truth-condition. When we learn a language we learn to recognise someone asserting something with such and such truth-conditions. We can do this without relying on a regularity between sentences, circumstance, force, and truth-conditions which we have learnt in advance of a given communicative episode. Hence, premise (2) of TIA does not follow from rejection of the hypothesis.

Doubt can be cast upon this proposal rather easily. It is far from clear that we really have something (namely assertion) that is different from a production of a sentence (in context, with force) with a given classificatory disposition. What is to stop us from identifying an assertion with no more than this?

²²⁹ (McDowell 1981 [1998]). There are difficulties in specifying what "decidable" is supposed to mean for a non-mathematical statement for which mathematical proofs are not available. We will suppose that a sentence is decidable if and only if it is possible to ascertain whether it is true or false.

²³⁰ This was an argument we considered in Chapter IV.

²³¹ (McDowell 1981 [1998], p.317)

One response to this question is to counter it with another question: does one *need* to say anything more? After all, no one is asking for us to say something more about, for instance, producing a sentence. If they did we may well run into difficulties in saying anything generally true of episodes of producing a sentence. So why suppose that more need be said about assertion? The reason is this. If we cannot comfortably distinguish the two then we have reason to doubt that an assertion is anything more than what we originally took a speaking episode to be. If a speaking episode is nothing more than the producing of a sentence toward which the speaker has a given classificatory disposition then there is the same question as we had before as to how the speaking episode constrains the classificatory disposition of the speaker toward the sentence produced in the episode.

One might stubbornly persist with the counter-question. If one has that temptation then note the following. Generally it is true of explanation that when someone requests it that request can be responded to with a dismissal of the question as daft. It may be laughed at, ridiculed, ignored. But the better teacher does not stop at that. She will be able to explain what is wrong with the question. When we request an explanation of the difference between a speaking episode, as we have glossed it, and an asserting, we may well be told not to ask the question, but we have yet to find an explanation for why that is. Insofar as this request is not responded to, those who find it difficult to distinguish the two will continue to find it so.

The obvious next step is to examine what more McDowell has to say about assertion. But with two exceptions, to which we will turn later, McDowell says nothing to distinguish assertion, whatever it is, from what is covered by our gloss of what happens in a speaking episode. What he offers instead, which still might be useful, are considerations against the possibility and necessity of a description of the speaking episode along the lines Dummett would prefer.²³² Perhaps these considerations apply to our own description of the speaking episode? Let us examine each criticism and how it might apply to our own discussion.

First, there is a charge against the *possibility* of a Dummettian view of linguistic behaviour. Dummett seeks to provide a description of a speaker's use of a sentence

²³² (McDowell 1981 [1998], p.321)

in terms that do not include appeal to anything that requires in place already an understanding of the speaker's use of the sentence; he seeks a reductively specified behavioural correlate of a speaker's production of a sentence with truth-conditions. McDowell calls the desired perspective one of the "cosmic exile."²³³ Dummett thinks behaviour to which, from this perspective, one can appeal, will be no more than the assenting and dissenting behaviour of the speaker toward the sentence in various different conditions. McDowell argues against the possibility of constructing such a theory. He denies that a theorist could recognise a non-linguistic behavioural correlate of a speaker's capacity to recognise and produce sentences with given truth-conditions without already being able to recognise sentences with given truth-conditions. One version of this point is couched in terms of whether a Martian could learn what chess is without a prior grasp of games or without being trained to recognise what chess is in a non-discursive manner.²³⁴ I do not think such a debate could be easily arbitrated. Who (on earth) knows what and how such things could be learnt? The same point is put with less allusion to fiction like so: if a description of linguistic behaviour is given in terms other than linguistic behaviour, then there could be many different linguistic behaviours for any given non-linguistically described behaviour that we consider. So a theorist could not work with the latter to derive the former.²³⁵ This is reasonable. But again, it is open to dispute in a way that unless the terms of the debate are more sharply circumscribed, will not be pursued fruitfully.

But is it true that in order to say something more about the speaking episode than merely "someone asserts something" we have to adopt the cosmic exile's perspective? I do not think so. *We* have a specific explanatory request: what is an assertion if not the production of a sentence (in context, with force) by a speaker with a given classificatory disposition? McDowell provides no reason to believe that answers to this request must be of a reductive kind. He only offers reasons (whether they are decisive or not) to think that answers *of a reductive sort* are

²³³ (McDowell 1981 [1998], p.329)

²³⁴ (McDowell 1981 [1998], pp.327-330)

²³⁵ (McDowell 1987 [1998], p.96). The point eventually gets worked up into something similar to one that (McDowell 1997 [1998], pp.114-118) finds in Wittgenstein's rule-following discussion.

unlikely to be forthcoming.²³⁶ So McDowell's first charge (of impossibility) does not apply to our request that more be said about assertion.

Second, McDowell makes a charge against the *necessity* of Dummett's alternative. This charge focuses on an epistemic principle that Dummett has purportedly adopted but which is false and so ought not to be adopted:

...the title of a state to count as knowledge depends on there being facts, unproblematically available to its possessor, that constitute a *guarantee* that the content of the putative knowledge is true. (McDowell 1981 [1998], p.335)

If Dummett abides by it then he is supposing that there must always be some unproblematic intermediary of which a knower is immediately aware and by means of which she knows that p (if she does).²³⁷ An example of this would be a view of perception according to which one knows that the light is on by means of sensations of colour and shape. One then infers from the colours and shape that the light is on. The trouble with this is that generally, for the kinds of thing which are allowed as the immediately known, they do not support an inference to that which is not immediately known. In the current case the immediately known would be what we have treated as elements of the speaking episode. That which is to be derived therefrom would be the classificatory disposition of the speaker. For this charge to be levelled at us we must have adopted a principle of the relevant sort in defending premise (2) of TIA. If we have, then rejecting it is one way to see that Stenius' attitude is not compulsory.

If we have adopted any principle of this sort, it is a special case of the general version. Nothing in what has been said in favour of premise (2) requires us to suppose that generally to know something one has to know it via some

²³⁶ One might accuse me here of attempting an explanation instead of a mere description simply because I am seeking an answer to a question (cf. (McDowell 1978 [1998], p.312) and (McDowell 1980 [1998], p.36). However, insofar as there is a worthwhile distinction to be drawn between description and explanation it is not properly drawn by whether one seeks to answer a question. Descriptions can be incoherent. If they are, then questions requesting explanation can reasonably arise. What we have been addressing is an incoherence of description that arises when a standard part of a description of the things that take place in communication is forfeited. We are looking to see how the description of a communicative exchange can be made coherent with this forfeiture.

²³⁷ (McDowell 1981 [1998], pp.338-340) makes the further charge that adopting the general principle renders Dummett's favoured immediate base just as problematic as that which he thinks is not immediately available.

unproblematic intermediary. If we have adopted a principle of this sort which is less general, what might it be? What *is* true is that we have assumed that how the speaker classifies the sentence is not something immediately available to an onlooker of a speaking episode (if the hypothesis is false). This assumption seems reasonable given our gloss of the speaking episode. That it follows from this, as we are supposing it does, that communication is not possible, is clearly a reason to think the speaking episode as we have glossed it is not the speaking episode we face as daily talkers. But then the question we have been asking remains: what exactly is wrong with our gloss on the speaking episode? We already suspect that there is something wrong with it. That is why we are not rejecting OS in the face of TIA. The necessity of Dummett's alternative might be undermined by rejecting the general principle McDowell outlines. But the need for an explanation as to what is wrong with our original gloss on a speaking episode remains. And to repeat: simply saying that a speaking episode is such that there is no problem (e.g. that it includes that wonder-act: the assertion) will not sate our explanatory appetite.

I conclude that we cannot carry over McDowell's attack on Dummett's gloss on speech behaviour to our own. This is for two reasons. The first is that McDowell's alternative, given its quietist tinge, is not distinguishable enough from our own problematic gloss of speech behaviour to show why premise (2) is false without adopting the hypothesis. The second is that Dummett's own gloss is combined with ambitions we do not have and McDowell's criticisms of Dummett seize upon those ambitions.

It is worth mentioning just one more thing. We should not forget that McDowell was proposing that we simply learn to recognise assertions when we learn a language *because* he was attempting to halt a Dummettian argument for anti-realism. That argument, recall, is that a speaker must be able to manifest her knowledge of truth-conditions in her linguistic behaviour; that behaviour consists of assenting/dissenting behaviour; but for undecidable sentences no behaviour of that sort manifests the truth-conditions of the sentence; hence the meaning of the sentence is not to be identified with truth-conditions. One might now raise the following concern: if one does not take McDowell's way out, is one not committed to the conclusion of Dummett's argument?

We should distinguish two problems. The first is whether, by giving application criteria so central a position in determining the extensions of expressions, we have committed ourselves to significant limitations on what the extensions of expressions can be. Earlier in response to this I distinguished between two senses in which a speaker employs application criteria.²³⁸ A speaker can operate an expression with a given application criterion in the sense of knowing what would be its referent, satisfier, condition of truth, and yet, not be able to employ the application to come to a view about the referent, satisfier, or condition of truth. For this reason, an inability to check on the truth-condition of a sentence does not mean the sentence cannot have that truth-condition as determined by certain application criteria. The second problem is whether, given the materials of a speaking episode, it is possible to identify what a speaker classifies as falling within the extension of her expressions as there uttered, without having learnt a regularity to which the speaker conforms in speaking. The distinction between senses in which application criteria are employed allows us to resolve the first problem while leaving untouched the second. Grant the distinction, and it can still be a puzzle how an interlocutor recognises the application criteria (or application criteria with the same verdicts as the application criteria) employed by the speaker without relying on a long regularity in the extensions of expressions employed. For this reason, we can reject McDowell's proposal without automatically committing ourselves to a semantic anti-realism.

4 The two exceptions to McDowell's quietism

There still remain the two exceptions to McDowell's quietism. We can make quick work of the first. McDowell proposes that to perform an assertion is to do two things. Firstly, and always, to publicise an intention to say something. Secondly, and sometimes, to let someone know something.²³⁹ I have no need to quarrel with such a proposal. We need only note that the first is a proposal about "force" as independent of any question about the truth-conditions of a sentence and the second is a proposal about something like a Austinian perlocutionary effect. We have already seen how these are no help in addressing our concern with premise (2).

²³⁸ Chapter IV, section 3.3.

²³⁹ (McDowell 1980 [1998], p.42)

The second exception is actually rather promising. McDowell discusses two views on the work done by different components of a theory of meaning. A theory of meaning will have two parts. The first part, a theory of content, will specify the truth-conditions of sentences. The second part, a theory of force, relates sentences to acts that can be performed with sentences. The dispute between McDowell and Dummett, at least as McDowell presents it, is over whether there is a behavioural correlate of the theory of content independent of the theory of force.²⁴⁰ Whereas Dummett thinks that one could provide behavioural correlates for a theory that describes the truth-conditions of sentences autonomously from a theory of force, McDowell does not think such can be done. Now, for the most part, it is not clear what the difference would be between a Dummettian and a McDowellian theory in this respect because McDowell says so little about what it is about the subject matter of a theory of force which when not rendered separable from the subject matter of a theory of content would change the kind of behaviour we would be discussing: I am just repeating here the earlier complaint that McDowell says less than enough to distinguish assertion from producing a sentence, in context, with force, and toward which a speaker has a given classificatory disposition. However, the second exception to McDowell's quietism is a point in one paper wherein he ever so slightly embellishes his proposal. He writes:

...the description of propositional acts that it [a theory of meaning] yields should fit coherently into a wider context in which the speaker's behaviour in general, including both their linguistic behaviour, under those descriptions, and their non-linguistic behaviour, under suitable descriptions, can be made sufficiently intelligible in the light of propositional attitudes (centrally, beliefs and desires) whose ascription to them is sufficiently intelligible in the light of their behaviour, again, and of the facts that impinge on them. Actions are made intelligible by finding descriptions under which one can see how they might have seemed reasonable on the conception sketched here, that applies, as it ought, to linguistic actions just as much as to others. Understanding linguistic behaviour, and hence understanding languages, involves no more than a special case of what understanding behaviour, in general, involves. (McDowell 1976 [1998], p.6. See also pp.17-18).

²⁴⁰ (McDowell 1981 [1998], esp. pp.317-321)

This passage is suggestive.²⁴¹ McDowell reminds us that any description of propositional acts (which includes assertion) needs to cohere with various other descriptions that one provides of a speaker's other behaviour and circumstances. In our own terms this means that whatever classificatory disposition a speaker has toward a sentence she produces, that disposition needs to be something it would be reasonable to employ in the production of the sentence. This suggests that the classificatory disposition of the speaker toward a sentence she utters is not independent of whatever these other descriptions describe (as McDowell would have it: non-linguistic behaviour, propositional attitudes, and the facts that "impinge on them"). If they are features of the speaking episode then, given that they do indeed provide the reasonable speaker with reason to employ words with a certain classificatory disposition, the speaking episode places a rational constraint upon the speaker's classificatory disposition. McDowell reminds us that uttering a sentence is an action subject to the same constraints of rationality as any other action. Such constraints may well inflate a speaking episode in a way that allows us to reject premise (2) of TIA.

4.1 Some terms: "means" and "ends"

Let us clarify the suggestion. To do this I will introduce some terms and then restate McDowell's proposal using them.

There are things one does which one does in order to do or be doing something else. For instance, one is at the swimming pool. One kicks one's legs and moves one's arms in order to propel oneself forward or so that one is moving forward. Or similarly, one types on the keyboard in order to produce a chapter or so that one is typing a chapter. I am going to use the terminology of means and ends to describe this. A means does not have to be temporally prior to the achievement of the end. They can be coincident. We already have two examples of this: kicking legs to be swimming; typing on a keyboard to be writing a chapter. Let us say that if one does A in order to do or be doing B then B is one's *end* and A is one's *means*. I am going to mean by "end" only that which is in some sense intentional as opposed to accidental. So if one does something and it has a given (possibly simultaneous) result the result is not necessarily an end of one's activity. An intuitive grasp of the

²⁴¹ McDowell is in effect disputing Austin's (1975, p.103) claim about the relation between the illocutionary and the perlocutionary aspects of speaking.

intentional/accidental distinction ought to be clear enough to navigate the discussion to follow.

There is a distinction between the telicities of a verb.²⁴² For instance, “John was swimming” contrasts with “John was crossing the street” because whereas the latter can be true even if John never crossed the street, the former cannot be true if John never swam. One might want to reserve the word “end” for the cases in which there is a telos in the sense that is present in “John was crossing the street” but absent in “John was swimming.” I am not using the word “end” in such a restricted way. That one is swimming can be one’s end as I am using the word “end.”

I will be supposing one’s ends give one reasons to do things which are means to those ends and reasons to avoid doing things which thwart one’s ends, and further, I will suppose that someone who is *rational* will act in accordance with what they have reason to do and to avoid doing. For example, if an end of mine is to stay alive, then I have a reason to only walk across a busy main road when the traffic is clear. If I want some food then I have reason to do something that will result in me being in the state of having some food, e.g. going to the fridge.

I am not supposing that one has only one end at a time. In reality, one has a great many of them at any one time. Pursing a means to one end may fatally curtail one’s capacity to pursue another. For instance, one’s attempt to eat the cake will undermine one’s life, seeing as the cake is poisoned. One has to balance these things and that is going to be a complicated story but again I think we can have a fruitful discussion without taking up views on what is involved in this.

What it is rational for one to do will depend not only upon one’s ends but upon of what one is aware. So if the cake is poisoned but one was not aware of this, and what one was aware of gave no reason to think one should check whether the cake was poisoned but did give one reason to eat the cake, then, one was not irrational in eating the cake even though doing so undermines some of one’s ends. We could say there was a reason to not eat the cake or even that he had good reason to not eat the cake but he was not aware of that reason. However, all I want to register here is that what it is rational for a person to do, and so what one would expect someone to do if they are rational, depends upon what they are aware of.

²⁴² (Vendler 1967)

I want to note two features of means and ends as sketched here. The first feature is that with changes in one's ends, there are changes in the status of activities as means to one's ends. This is because only certain activities will result in certain ends. Thus one's ends place rational constraints on one's activities. They constrain what one ought to do if one has certain ends. So for example, if I want to get to King's Cross then I ought to take certain buses rather than others because only some buses are means to that end. Given I have that aim I have reason to take certain buses rather than others. Or again, if I want to learn philosophy, I have a reason to spend a portion of my time doing certain activities rather than others, e.g. reading philosophy books rather than novels or sitting in the sun.²⁴³ In this way there can be changes in one's reason for doing things.

The second feature of means and ends that I want to note is that changes of circumstance can change the status of something as a means to a given end. For example, whether I am walking north depends upon whether I have my bearings right. If I took a wrong turn, then unbeknownst to me I would be walking south rather than north. In walking or by walking I am not then walking north. Whether my walking is my doing that depends upon the circumstances. There is a sense in which even when in some sense I am not walking north, I can still be said truly to be walking north. Suppose for instance that I have to take a minor road which goes back on itself slightly. I could still report that I was going north if someone was trying to check my general movements, and so where I will be in the next 20 minutes.²⁴⁴ But that that is so does not change the fact that in another sense I will not be walking north in walking at that time, despite the fact that if my walk were differently oriented to my surroundings, I would be. This is all I mean to draw attention to. Similarly, my moving of my arms and legs is not my swimming if, for instance, I am not in any water, or, they are not coordinated in such a fashion as to result in me guiding myself through the water. Although of course once again I could report what I was doing as swimming in the sense that I had apportioned a part of my day to attending the swimming pool, that is beside the point. Whether I am at a given instant swimming in the sense of propelling myself through the water by kicking my legs and moving my arms depends upon the circumstances in

²⁴³ (Anscombe 1957 [2000], p.36)

²⁴⁴ (Falvey 2000)

which I make those movements. Those movements do not make *that* the case all by themselves.

4.2 McDowell's proposal: a restatement

McDowell's proposal can now be put like so. Suppose that an agent has various ends in the speaking episode. This makes producing sentences with such and such a classificatory disposition to a greater or lesser extent a rational thing to do. If we suppose that the agent is rational, the ends someone is recognisably pursuing in the circumstances of the speaking episode constrain what classificatory disposition she could have toward the sentences she produces. Thus the speaking episode constrains the classificatory disposition a speaker could be employing toward the words she produces in the speaking episode.

We had originally supposed that in the speaking episode the speaker attempts to communicate by producing linguistic expressions (in context, with force). The implication in saying this, without mentioning anything else she is trying to do, is that she is not trying to do anything else which is relevant to considering the truth-conditions of the sentences she produces. In effect, the current proposal is to explicitly discard this implication. The simple model of communication is *not* discarded; it is being recognised for what it is: an abstraction.

McDowell's proposal allows us to challenge premise (2) in the following way. If the speaker is pursuing projects in uttering given expressions in a speaking episode and these projects, pursued in these circumstances, rationally require employing those expressions with a given classificatory disposition, then the speaking episode places (sufficient) rational constraints on the speaker's classificatory disposition to identify one disposition in particular and therefore the speaking episode does not underdetermine the classificatory disposition of the speaker.

Using McDowell's observation to inflate the speaking episode is not subject to the criticisms we levelled against either his first proposal or Austin's proposal. If we describe the further ends of a speaker, and the circumstances of speaking, and show how these rationally require a speaker to use expressions in certain ways, then we are not being quietist in the way that was unsatisfactory. Further, the kind of constraint placed upon the speaker's classificatory disposition on the current proposal need not be conventional. If the constraints placed arise even

when there is no long regularity in the substantial expressions she produces as understood by her interlocutor, then the constraint would remain even if the hypothesis were false.

4.3 McDowell's proposal: two misplaced objections and one difficult challenge

There are two easy objections against using McDowell's proposal for our purposes. The first is that someone's ends do not place rational constraints upon what classificatory disposition a speaker has toward a sentence because her ends are neither furthered nor thwarted by employing one combination of expression and extension over any other. Given the non-essentiality of the extension of an expression, any combination would be as good as any other for saying what the speaker wants to say. A second objection is that there would be no reason to use some words rather than any others if things were as proposed. But clearly what words one employs does make a difference: one cannot say anything one likes with just any words. Hence the proposal cannot be correct.²⁴⁵

The first objection is misplaced. While it may be true that there is no reason to favour one expression-extension combination over others, the speaker's other projects may still give speakers reason to operate whatever expressions they do operate so that they have some extensions and not others. For example, suppose I try to give some indication as to where your book is. Suppose I do so by uttering an expression which refers to the location in question. If what I count as falling within the extension of the expression is an item of which you have no knowledge, and which has no bearing on the location of your book, then I would not be being rational in producing the expression with the extension that I have. So I have a reason not to use the expression in this way, given my aim. That is so even though there may be no reason for me to use one *expression* rather than any other to do the indicating. These two issues need to be kept separate. What is a reason to produce an expression (no expression in particular) with some particular extension

²⁴⁵ This second objection is levelled by (Dummet 1986, p.474) and (Reimer 2004, pp.323-324) against (Davidson 1986). Davidson proposes something similar to McDowell. Dummett and Reimer however exaggerate Davidson's position in making their complaint. Davidson does not say that words contribute *nothing* to what can be done with them. But unless this is supposed, the objection does not apply.

need not be a reason to prefer one array of expression-extension combinations over others.

As for the second objection, I want to say two things. Firstly, the proposal is not that words contribute *nothing* to what can be said by their means. We are denying that what words contribute determines either an extension or an extension relativised to various further factors for a long longevity. So we are not committed to the absurdity that while speaking English properly one could correctly use “green” to speak of red things. Secondly, the exact choice of words someone makes in speaking is not obviously our explanandum. Whenever one does say something there are bound to be alternatives to most of the words that one employed to say what one said which would have done just as well for the then current purposes, even though on another occasion a distinction might be made by means of those words. Consider occasions on which someone else tries finishing your sentence as you speak and they select a different word from that which you actually select but which is just as good for saying, in those circumstances, what one wanted to say. In such cases, despite the words not being synonyms, they are interchangeable for current purposes even though in other circumstances the words could be used to draw a distinction. For example, consider the following excerpts from an exchange between an attorney and an alleged rape victim:

A: You went to a bar in the city, is that correct?

W: It's a club.

A: It's where girls and fellas meet isn't it?

W: People go there.

A: An during the evening, didn't Mistuh so-and-so come over tuh sit with you?

W: Sat at our table.

In each case, the alleged victim distinguishes her own words from those used by the attorney and thereby makes a distinction between two things that might have taken place.²⁴⁶ But clearly the words, in other circumstances, would be interchangeable.²⁴⁷ To see this consider the second question above: and during that evening, didn't Mr so-and-so come over to sit with you? Consider the following circumstance in which an answer might be given. John is looking for his friend, Bob. He gets emotional when he's been drinking. John doesn't like leaving him alone too long or his darker thoughts may get too great a grip for the evening to continue. John asks, "he came over to sit with you?" the alleged victim might reply, in these circumstances, "yeah, but that was a while ago." Here there is no need for her to distinguish between coming to sit with her and coming to sit at the table where she and others were seated. There would not be any point to doing so. But despite this, in other circumstances, to describe the same situation, the same words might be used to draw *a distinction* as we can see going on in the cross-examination. Again, there is often (I would propose always) alternative words to the ones one uses to say what one said even though in *some* circumstances one could draw distinctions by their means.

In regard to this it is also worth remembering that when someone speaks only some things are remembered of what happened when they did so. Think of what you remember happening when you recall someone's phone call to you yesterday, for instance. By and large the words are *not* remembered even though you remember what happened.²⁴⁸ This is not what one should expect if the exact words chosen were so important to doing what one does in speaking.

A more substantial difficulty with the proposal lies elsewhere. If the current proposal is to allow us to reject premise (2) then we need to be able to specify means and ends which constrain to uniqueness the classificatory disposition of a speaker. The more substantial difficulty is meeting this challenge. A major stumbling block is that it very much appears as though it is possible to tell someone something without there being any further end that one is pursuing in doing this, and the telling be intelligible. There appears to be a practice of

²⁴⁶ If you are tempted here to introduce a Gricean distinction between what was said strictly speaking and what was merely implicated, then see discussion of a main criterion for drawing that distinction in Chapter II.

²⁴⁷ See (Drew 1992, p.492). The excerpts are taken from his paper.

²⁴⁸ Cf. (Sachs 1967) and (Neisser 1981)

(intelligible) *bare assertion*. But if there is such a practice then, in such cases, there are no rational constraints on the classificatory disposition of the speaker of the kind we are considering. So in order to make this proposal work, something about this appearance needs to be disputed. But given the intuitive appeal of the appearance, one might think that this alone speaks against the proposal.

Communication as we have glossed it is not the same as bare assertion. For an exercise in bare assertion a speaker has to produce a sentence perhaps aiming to get someone to think something but *nothing* more. There must be nothing else influencing what it is that the speaker does. To communicate (how things are) is for someone to come to know of how the world is by observing someone's speech behaviour. Communication *can* involve the pursuit of other ends in producing a sentence. What is at issue is whether there are cases of communication that are cases of bare assertion.

The doubters assuredly suppose that (intelligible) bare assertion *is* a practice of ours. Bloomfield supposes that all that takes place when communication happens is that a speaker produces movements of her vocal chords which vibrate the air, and it is this to which a hearer is responsive.²⁴⁹ When Cappelen and Lepore ask how communication could be possible given the truth of what they call "radical contextualism" they ask after one's understanding of what we the readers would have said by uttering the sentence "Philosophy is fun."²⁵⁰ They do not consider what the speaker might have been trying to do in uttering the sentence; the implication being that nothing else is relevant. Hornsby focuses entirely on a case in which the only end of the speaker is to "be taken to mean what one wants to be taken to mean."²⁵¹ Lewis thinks the most general use of language is one on which the only thing a speaker aims to do is to induce a belief in the hearer.²⁵² Stanley operates with a conception of conversation which can be analysed as "acquiring and conveying information about the world,"²⁵³ apparently without further (relevant) end. Stenius proposes that if a sentence is in the indicative mood then a speaker of the sentence is playing a "report game" according to which the only aim a speaker

²⁴⁹ (Bloomfield 1933 [1979], pp.25-27)

²⁵⁰ (Cappelen and Lepore 2005, p.124)

²⁵¹ (Hornsby 2009, p.110)

²⁵² (Lewis 1969, p.180)

²⁵³ (Stanley 2007, p.12)

has is to communicate something associated with a sentence.²⁵⁴ Stenius believes that what is to be understood by someone's utterance can be clearly delineated once this alone is in place. Reimer considers only a speaker's intention to communicate that p and ignores what other pressures might impinge upon her in speaking.²⁵⁵ That they make this supposition provides a tempting explanation as to why the doubters think rejection of the hypothesis entails commitment to premise (2) of TIA: it saves that premise from McDowell's proposal.

If we are going to take up McDowell's proposal we need to do two things. We need to show what kind of thing a speaker might be trying to do which would, given the circumstances, rationally require her to adopt a given classificatory disposition. Further, we need to address the stumbling block of bare assertion.

²⁵⁴ (Stenius 1967, p.264, pp.269-271)

²⁵⁵ (Reimer 2004, p.323)

CHAPTER VII

Politely calibrating words for use by someone else

1 Introduction

The next section of this chapter will introduce an end which would require a speaker to use words in certain ways rather than others, given the circumstances in which the end is being pursued. I give three examples of situations in which such an end is being pursued. Anyone aware that that was the social terrain the speaker was navigating in speaking, and who knew the speaker to be behaving rationally, could become aware that the speaker was using her words with a given classificatory disposition. Speech actions of this category are instances of talk for which premise (2) of TIA is false. The rest of the chapter will take a (I think, significant) step toward removing the stumbling block mentioned at the end of the previous chapter. The stumbling block was that it seems we engage in (intelligible) bare assertion. I consider a specific presentation of this claim by Lewis. He supports the claim by citing the case of “idle chat” as one of intelligible bare assertion. I argue that idle chat is not idle in the required sense. Perhaps there is intelligible bare assertion. But the most obvious candidate for that is no such thing.

Before we begin I want to make a note of what I mean by “comprehension.” Consider the difference between the following. Someone can utter a sentence, for instance, “the chair is old,” and one can see how it could be made true by some particular item, e.g. Ruth’s chair. So in a sense one understands the sentence as uttered. But in another sense, one may well have not understood. For instance,

suppose that in the circumstances, only something that qualifies as an antique can satisfy “is old.” In that case Ruth’s chair would not make the sentence true despite the fact that it *could* make it true. This would show itself in that if you were to interrupt the conversation by saying, “It *is* old, in a sense,” you would be scorned for drawing attention to an irrelevance, or worse. What is at issue in this chapter is comprehension of a sentence in the second sense and not the first.

2 Calibrating for use by someone else

On the view argued in Chapter IV, linguistic expressions do not include their own application criteria. That is something left open for a user of those expressions to establish upon the occasion for using them. As we put it there, she has to *analyse a scene* where any given scene can be analysed in lots of different ways. This was thought to be so for a reason: there are no application criteria which if employed together, in operation of expressions as parts of a semantic calculus, would be non-contingently balanced. Hence, in order for one to reason validly with the application criteria available, one has to find those that will give rise to a balanced calculus in the circumstances of their employment.

In what follows I will use the expression “semantic calculus” to speak of not only a substantially interpreted formal semantics but one that includes certain sentences of the object language of the formal semantics that are held to be true. I will also use the word “sentence” in a slightly stretched way. I allow that two things could be the same sentence even if they do not include the same words.²⁵⁶ What I am interested in is items which play the same role in a formal semantics with respect to (a) the extension of the expressions that make up the sentence and (b) the horizontal principles within which the sentence figures. If two sentences, in the more ordinary sense, are the same with respect to (a) and (b) then I will say they are the same sentence in the broader sense I am going to employ. The point of allowing this stretched usage is that it allows me to speak of a semantic calculus which includes sentences held true by an interlocutor where there are not any particular words (in the more usual sense) that need to be employed in the reasoning or talk of this interlocutor.

²⁵⁶ The move is the same as was made in Chapter IV when introducing the notion of “analysing a scene.”

Now, back in Chapter IV we were concerned with a solitary reasoner using a system of classification (an applied semantic calculus) to reason validly (in application) about a collection of items. But it is also possible for more than one person to use a single semantic calculus to reason about a scene. One way for two persons to do this is as follows. The hearer already has in place a semantic calculus (a particular analysis of a scene). The speaker produces expressions for the hearer to employ within that calculus. For example, you employ the sentence “If John weighs less than 80kg then it will not be the case that the lift will fall” and I come to produce a sentence, presenting it as true, which you attempt to combine with your conditional, namely, “John weighs less than 80kg.” Then you would have in place a semantic calculus and I would have produced a sentence that you the hearer employ within your calculus.

Things can go awry in this venture. Suppose that the way in which I operate “weighs less than 80kg” is such that when it figures in a semantic calculus alongside the other two sentences, the application criteria employed are *unbalanced*. Your application criteria and my application criteria when combined into a single calculus produce an unbalanced calculus. Because of this it is possible for the sentences in this semantic calculus to be assigned values as follows: $I([s [NP John]_{Pred} \text{ weighs less than 80kg}])^{M,w,i,c,g} = 1$; $I([s \text{ If } [s [NP John]_{Pred} \text{ weighs less than 80kg}] \text{ then } [s \text{ It is not the case that } [s [NP The lift]_{Pred} \text{ will fall}]]])^{M,w,i,c,g} = 1$; but $I([s \text{ It is not the case that } [s [NP The lift]_{Pred} \text{ will fall}]]])^{M,w,i,c,g} = 0$.

If one aims to enable a hearer’s valid (in application) reasoning then one ought to employ application criteria, whatever they might be, such that in the circumstances, the hearer’s reasoning would be valid (in application). But as was argued in Chapter IV, what will enable *that* will depend upon the circumstances. If it is clear to both one and one’s hearer that one is calibrating one’s words for use in the calculus in which the hearer is going to use the words to reason, then, it will be clear that whatever application criteria one employs, one is doing so in a way that enables valid reasoning and thus, it will be clear, given suitable circumstances, what the extensions of one’s expressions are when one speaks. In this way, the classificatory disposition is constrained by the end of the speaker in speaking in, and the circumstances of, the speaking episode. Thus, one kind of circumstance in which the speaking episode constrains the classificatory disposition of the speaker has the following characteristics:

- 1) There is a scene which can be described with expressions of a particular semantic calculus, including logically complex expressions. This is done by employing the expressions with given application criteria: thus applied, the expressions' application criteria will categorise the elements into those which fall within the extension of given expressions and those which do not.
- 2) The speaker produces words.
- 3) In producing the words of (2) the speaker aims to produce words which can be used by the hearer in the calculus of (1).
- 4) The hearer will use the words as part of the calculus of (1).
- 5) The hearer is aware that the speaker is using words in such a way that they can be used as part of the calculus of (1).

The application criteria employed by the speaker to operate her expressions will need to be balanced for use in the hearer's calculus if the semantic rules of the calculus are to enable valid (in application) reasoning about those items by the hearer. For ease of reference let us say that speaking episodes with features (1)-(5) are *polite speaking episodes*.

In polite speaking episodes there would be a rational constraint upon the speaker's classificatory disposition toward the expression she produces in the speaking episode. By "rational" I mean what I meant in Chapter VI: it is rational to pursue a given activity insofar as it furthers and does not hinder one's ends. Suppose the speaker has an end. She pursues this end by producing a sentence. But, if the circumstances are rich enough, in order for her producing the sentence to be a means to her end, she has to produce it in a certain way. Thus she is under rational pressure to produce the sentence in that way.

Although it is clear that the hearer is not going to use the expressions in just whatever way the speaker is using them (she is going to use them in accordance *with her calculus*), there may be a concern that the constraint this kind of speaking episode places upon the speaker's classificatory disposition is no more than that the speaker try to use her expressions in whatever way the hearer is using them. To fend off this concern I want to register two features of the kind of situation under discussion. The first is that the speaker need not use the expressions with the same application criteria as her interlocutor; provided that the relevant reasoning with such expressions is nonetheless balanced. For instance, in the case of John's weight

you might count John's weighing less than 80kg by how he looks (you can make such estimates by the eye pretty well) whereas I rely upon the scale reading. Provided these two coincide in their verdicts, there is no reason why, for the purposes of the bit of reasoning we are considering, the particular criteria employed to get those verdicts, need to be the same. So in regard to the application criteria employed, the speaker is not aiming to use the expressions in the same way as the hearer. Secondly, what will balance a shared calculus is not something that either or both interlocutors can *stipulate* or make so by agreeing to count as so. If both were to use the expression with application criteria which unbalance the calculus, that they are both using the expression in that way does not make the calculus balanced. Whether the verdicts of the application criteria employed of different expressions will conform to the principles of the calculus is something decided by the way the world is arranged. For example, whether or not the way in which one applies the sentence, "John weighs less than 80kg," and the conditional, "If John weighs less than 80kg then it is not the case that the lift will fall," is balanced depends upon whether items to which one applies the application criteria are such that if these two sentences are true then the application criterion for "the lift will fall" returns the verdict 0. For this reason, the *hearer herself* could be mistaken about how to use the expression correctly. What counts as correct use of the expression depends upon a feature of the situation that is objective and to which *both* interlocutors aim and *both* may fail to achieve. In this way, the interlocutors face not so much a coordination problem as they do an engineering problem.

Polite speaking episodes are of interest because they are situations for which premise (2) of TIA is false.²⁵⁷ For unlike situations in which a speaker is simply trying to use her words in the same way as her interlocutor, in polite speaking episodes there *are* rational pressures on speakers to operate expressions in certain ways rather than others where that pressure is not exerted by the end of using an expression in the same way as one's interlocutor.

Compare this with a remark by Evans. A student reads out an essay which we are to suppose requires stating how a car engine works. The student says the sentence,

²⁵⁷ Recall that premise (2) is: the speaking episode underdetermines the classificatory disposition of the speaker.

“A spark is produced electrically inside the carburettor,” and a classmate says, “He means the cylinder.” Of this Evans says:

...to be saying that a spark is produced in the cylinder is what, given his general plans and his situation, the subject should be doing; that is, doing that is what would conform best with the subject’s plans at this moment. The truth which he should have been trying to express at this point is that a spark is produced in the cylinder. (Evans 1982, pp.130-131)

The classmate knew what the student ought to have been saying because she knew what the student was trying to do in uttering his sentence and how this constrained what he ought to do with his words. That is precisely the present point. If the circumstances of someone’s speaking and her ends in speaking are rich enough, then there are ways the speaker ought to be using her words, and anyone (suitably equipped) could see that that was so who was able to witness the speaking episode and its circumstances. This is despite the falsity of the hypothesis. We are not supposing that there need be any regularity in the extension of expressions across different occasions of speaking.

I will now describe three examples of polite speaking episodes. These are examples wherein the speaking episode places rational constraints upon the speaker’s classificatory disposition toward the sentence(s) she utters.

2.1 Giving directions

The scene is Pentonville Road. Doors line the sides of the road. They have colours. The semantic calculus to be employed is one in which the conditional, “if Alex’s door is colour C, and the door is colour C, then the door is the entrance to Alex’s flat,” is held to be true. That covers (1). The speaker utters the words “My door is green.” That covers (2). There is then a question of what application criteria ought to be employed for “my door” and “is green.” Given the application criteria for “Alex’s door” and “colour C” and “entrance to Alex’s flat,” certain application criteria ought to be employed for operating “My door” and “is green” which are such that, if they are combined with the conditional, in the same calculus, the application criteria are balanced. Notably, the street scene as the hearer walks down Pentonville Road will have to be similarly analysed by the interlocutors. That could fail to be so. They might count different things as doors, so that something

that the speaker classifies as a gate, the hearer classifies as a door, and since it is green, he makes a mistake about where the speaker's flat is. Similarly, they might diverge about what exactly should be classified as green (for current purposes). The hearer might classify almost grey doors as green doors whereas this is not what the speaker's application criteria would have the speaker count as within the extension of her use of "green."²⁵⁸ If we suppose there is this agreement, and that the speaker aims to produce an expression to be wielded as part of the calculus of (1), then that covers (3). We may suppose that the hearer will use the sentence "My door is green" as part of her calculus. That covers (4). Finally we may suppose that the hearer is aware that the speaker has the aim she does. That covers (5).

Given all this, the speaker faces a challenge: find application criteria for her expressions that will enable the hearer to reason validly (in application) with them. Let us focus on "is green." Items can be categorised as green in many different ways (while still, for all that, speaking English). One division between ways of doing this is between considering the colour of the first coat of paint an item ever received or its latest coat of paint. There are reasons to be interested in either.²⁵⁹ Depending upon which of these one employs one will get different verdicts as to whether the speaker's door is green. Which should the speaker use? By "irrational" we mean selection of a means that is not a means to one's end. Because the speaker aims to enable the hearer to reason about the speaker's door in relation to the other items on the street (when searching for the speaker's flat), it would be irrational for the speaker to employ the word "green" with certain application criteria in the exchange in which she gives directions to the hearer to the flat; for example, such that when viewed from outside the speaker's flat, the door appears red, but when placed in green light looks green. A person walking down the street cannot, by observing the doors, as he passes them, readily classify them as the speaker's or

²⁵⁸ I have certainly had this experience when someone's giving directions. If someone says "take the second left" one can find oneself unsure whether a narrow alleyway counts as something one should be counting as a "left."

²⁵⁹ An example of a situation in which one would be interested in the first coat of paint is this. Suppose that there is an infamous room in which a murder took place. It is known that the room is in 256 Pentonville Road but it is not known which room it is. It is known however that the original colour of the room was a pale lilac. Someone could ask, "was it a green room? The kitchen's green, see, so I'm wondering" and what would make true this claim that the kitchen is green would be the first coat of paint the kitchen received. Its latest coat of paint would not be relevant.

not and so base his action on such a classification.²⁶⁰ So the speaker ought not to use the word “green”, in these circumstances, in that way.

An objection one could raise at this point is as follows. Surely the application criteria of the expressions of the calculus with which the hearer would reason but which the speaker does not utter cannot be taken for granted. The speaker needs to know what these are. But then the speaker not only faces the challenge of employing expressions with application criteria that form a balanced calculus with these other expressions. She faces the challenge of identifying the whole calculus. But if this is so then we are returned to the very predicament that encouraged Stenius’ attitude. For there is nothing about the speaking episode which constrains what semantic calculus within which the hearer will use the speaker’s words.

I accept the objector’s initial observation but not the consequence she attempts to draw from it. I agree that the speaker will need to recognise the hearer’s semantic calculus but the current proposal is that within speaking episodes there are activities taking place, in given circumstances, within which the speaker’s words play a given role. The semantic calculus for which the speaker is to calibrate her words is determined by this activity and its circumstances. Thus *the speaking episode* introduces severe rational constraints on how the speaker ought to use her expressions (i.e. what her classificatory disposition ought to be) if she is using her words as a participant to that activity. These constraints are not conventional: one does not fulfil them just by agreeing with one’s interlocutor that one has fulfilled them. Nor are these constraints a part of the speaking episode as initially glossed. So in accepting the initial observation we do not return ourselves to the original predicament.

2.2 Ordering coffee

The scene is the Nero’s cafe on High Holborn at 830am on a weekday morning. There is a long queue of city workers and four baristas serve behind the counter. There is a menu on the wall behind the baristas on which are listed items, sometimes varying in size, and alongside them quantities of money like, “£1.85.”

²⁶⁰ This is not *necessarily* so. Suppose there is a street with green street lights but under which most doors appear brown, while mine, which in daylight looks white, looks green. Burglars planning their next night attack might declare their target by speaking of, “the one with the *green* door” and say, “We are doing the one with the green door” and speak truly.

In the scene a sequence unfolds as follows. A barista will walk along the queue trying to catch the eye of customers who have not been served. Sometimes she will do this by asking, “are you being served?” When someone looks like they have not been served she looks at them and either waits for a response (which will be a “hello” and then an order, or simply the order without the “hello”) or asks, “what would you like?” or something similar. This is not a general inquiry nor is it any other particular inquiry (e.g. what would you like for dinner this evening? or what would you like to eat from the Costa five shops west?). It is an inquiry into what from the menu of this cafe the customer wants to buy. The customer will then make an order.²⁶¹ The barista gets the order. When it is ready the customer is called from the queue to the till. The barista announces a price (usually without formulating this in terms of a question). The customer hands over the money. Change is given. The customer leaves. The barista looks for her next customer.

The barista in this sequence employs a calculus which includes the following conditionals: “If the customer wants a small Americano to go, then I should place two shot glasses under the machine, turn on the machine, find a small paper cup, empty one espresso shot into the cup, fill the rest with water, place the lid on top, then call the customer over to the till.” That covers (1): we have a scene and a calculus. Within this the customer produces words which one can find on the menu. They do so knowing that the hearer (the barista) will employ those words in certain ways because of the roles they have adopted with respect to one another. This covers (2) and (3). We know (4) is so of this case because we know the barista will guide her subsequent movements in different ways depending upon what the customer says in highly predictable ways. The barista in this case can know that the speaker is producing words to be used as part of the calculus she employs. So (5) is so of this example too.

²⁶¹ Generally. The customer might turn out to be someone applying for a job or someone making a complaint or requesting information about an umbrella they left there yesterday and so on. Often however one finds that people with such purposes do *not* queue. They go to find a free barista directly behaving in a manner which is quite different from someone who is making an order. So things are more complicated than I am letting on. But I doubt a microsociological analysis of the kind of situation I am describing would take longer than a small book to describe. For the way in which a customer can influence what she is understood to be doing by modifying her bodily posture and orientation to the surroundings (i.e. without speaking) see (Clark and Pinch 2010).

To enable that kind of reasoning to be valid (in application), and given as in the previous example, that the customer and the barista will classify the other elements of the scene before them in similar ways (though not necessarily with the same application criteria), so far as the customer's order is concerned, the customer has to use the expressions she does with certain application criteria rather than others. For instance, the word "coffee" could be used in many different ways. Consider a cup filled with brewed coffee but which has been left for long enough to grow mould. Is that what you wanted? Or consider a cup with coffee beans inside it. Or consider synthetic coffee. Is that coffee? Something with coffee flavouring. Is a brew made of the same species of plant as coffee but which tastes nothing like that plant, a cup of coffee? Is partially digested coffee still coffee? The choice is there for the speaker, when she is in the cafe, to adopt some of many application criteria for the word "coffee." But why she is there, and given that enough of the circumstances are fixed in which she attempts to do what she is going to do with the expressions, it is clear how she ought to use the word she does in the circumstances.

2.3 Help finding something

I sit in the computer room at the KCL philosophy department. I often witness someone step into the computer room and pause and look at the different computers, each with its own blank screen. Consider a calculus someone might apply to this scene which includes the conditional: "If the computer is working, then one can send emails and print documents from the computer." That covers (1). I would say, when I saw someone enter and behave in the manner described, "That one's working," pointing at the one that would let people print and send emails. That covers (2). I would do so in an attempt to enable them to find a computer that would enable them to send emails and print documents. That covers (3). They would then sit down at the computer and proceed to do one of these two things, avoiding the other two computers. This covers (4) and we may suppose (5).

There are various ways one could classify things as falling within the extension of "working." For instance, suppose I am standing next to a tech savvy friend as he applies a voltmeter to various computer innards. He says, "that one's working" speaking of one of the computers in the computer room that I never tell incomers is working. This particular computer contrasts with another whose motherboard is fried. All that is wrong with this particular computer is that its graphics card is

unplugged. Nonetheless, because its graphics card is unplugged (and its case sealed, when in the computer room) it cannot be used to send emails or print documents. So in one sense it is working and in another it is not. When people enter the computer room evidently looking to do certain things with the computer, when I speak I am attempting to help them find a computer with which to do those things by producing a sentence with which they can reason in the calculus they employ. Once again there will be some reasoning within which my words will figure and I know this, and because of that, in order to do what I seek to do I employ the predicate “is working” with an application criterion which enables the incomers to reason validly (in application) about what to do next.

3 Rejecting premise (2) of TIA

Recall the incompatibility argument:

- 1) A and B can communicate only if the speaking episode does not underdetermine the classificatory disposition of the speaker. (assumption)
- 2) The speaking episode underdetermines the classificatory disposition of the speaker. (assumption)
- 3) It is not the case that A and B can communicate (modus tollens, (1) and (2)).

We have been searching for a way we can legitimately reject (2). The plausibility of premise (2) rests on the gloss we provided in Chapter V of the speaking episode. We considered and rejected ways to inflate the speaking episode in Chapter VI. By following up a hint from McDowell, we now have on the table a fairly clear way of inflating the speaking episode which has the desired effect. Premise (2) is false when the speaking episode includes a speaker who is attempting to do an action which, given the circumstances, requires her, if she really is to do or be doing the action, to adopt a given classificatory disposition rather than others. The (kind of) action in question is, in our technical sense, speaking politely. Hence, what takes place in the speaking episode places a rational constraint on the speaker’s classificatory disposition. For her speaking to be a means to an end it has to be done in a certain way. So if the hearer knows the speaker is being rational and the hearer knows how the expressions would have to be used to be rational in the circumstances, then the hearer can tell how the speaker ought to be, and is, operating her expressions.

The role here described for the circumstances of speaking, in speaking, is significantly different from the role played in Austin's account of the phenomena he observed and circumstances' role in further factor views that involve commitment to the hypothesis. In both cases that which, beyond the words, is relevant to the truth-conditions of sentences uttered, is relevant because everyone agrees that it is. For instance, consider the parameters in a non-standard semantic analysis of a sentence that is presented as an attempt to eliminate Travis cases. Why do the circumstances that figure here figure as they do? Because it is a convention that the words are to be so used. It is made so by everyone agreeing that it is so. But on the current view, the role of the circumstances of speaking is very different: the circumstances in which one speaks constrain one's classificatory disposition in the same way the circumstances of an action ordinarily constrain how one acts. If an agent aims to do something, and in the circumstances, only certain ways of doing that would enable her to do or being doing it, then she ought to go about doing that in a way that, in the circumstances, enables her to do or be doing it. The circumstances of a plant are relevant to how it needs to be to achieve good growth. The circumstances of someone climbing a wall are relevant to how she goes about climbing the wall. So too, the circumstances of speaking are relevant to how one wields one's words in speaking.

4 The stumbling block: bare assertion

A persistent source of worry about the reason I have provided for denying premise (2) is (it seems) that conditions (3)-(5) of a polite speaking episode do not need to be satisfied in order for communication to be effected: there need be no particular semantic calculus for which the speaker calibrates her words and within which the hearer uses those words. There may be examples (such as those provided above) in which this is quite plausibly so, but says the worrier, surely there are episodes of successful communication which are not polite (in this technical sense)? The rest of this chapter takes some steps toward addressing this worry. We do so by examining a statement by David Lewis of the claim motivating the worry.

In his discussion of convention, Lewis considers situations much like polite speaking episodes. He calls them (verbal) signalling systems. Characteristically in signalling systems: the hearer does something in response to the expression a speaker produces; what they do depends upon the expression produced; and both

interlocutors know that there is this dependence. Hence, if we suppose that the response of the audience is not unmediated by reason, there will be some reasoning with which the speaker's words figure in a Lewisian signalling system.²⁶² Nothing but irrelevancies distinguishes polite speaking episodes from Lewisian signalling systems. However, Lewis eventually removes the shared elements from his account. His reason for doing so is put here:

Verbal signalling is carried out with some definite end in view, and it is common knowledge what that end is. But this is not the case in general. I do not tell you only what you need to know right now in order to serve our common purposes. Often there is nothing in particular that the audience should do if the communicator has told the truth. The audience should form a belief, perhaps, but that is normally not a voluntary action and hence not an action in conformity to convention....No doubt there is a continuous spectrum from verbal signalling to idle chat, and two-sided and one-sided coordination may be mixed in various proportions. But generality is served by concentrating on the one-sided coordination among communicators, not on the occasional two-sided coordination between a communicator and his audience. (Lewis 1969, p.180)

Some explication is needed. Coordination is the solution of a coordination problem. A coordination problem arises when, between two agents, there are multiple courses of action, each equally preferable to the others, but wherein each is preferred only given the other agent pursues the course of action too. One-sided signalling problems arise when communicators are trying to use expressions in the same way as other communicators and nothing else impinges upon their preference for how they use their signals. Two-sided signalling problems arise when communicators and audiences are trying to make the audience's behaviour depend in some way upon the state of affairs in response to which the communicator produces her expressions. Verbal signalling includes two-sided signalling.²⁶³ With this background, what is Lewis claiming in this passage?

²⁶² (Lewis 1969, pp.81-82, p.131)

²⁶³ (Lewis 1969, pp.141-143) makes verbal signalling *compatible* with two-sided signalling. But (Lewis 1969, p.180) restricts it to two-sided signalling and is invoking this gloss in the above quotation.

Lewis contrasts verbal signalling (so something inclusive of two-sided signalling) with what is “the case in general.” What is often the case, he says, is that there is nothing the audience should do given the communicator has told the truth.²⁶⁴ Lewis supposes that:

Bare assertion is a comprehensible practice of ours.²⁶⁵

Let us call this *Lewis’ assumption*. If Lewis’ assumption is correct then there is trouble for our use of polite speaking episodes to undermine the justification there is for premise (2) of TIA. For if Lewis’ assumption were correct there would be speaking episodes in which successful communication does take place but wherein there is nothing the audience is expected to do with the expressions the speaker produces. But if there is nothing the audience is expected to do in response then there is no particular, if any, semantic calculus within which the hearer will use the expression to reason. And if there is no such calculus there is no calculus for which the speaker has to calibrate her expression for use within. Hence the speaking episode would not constrain the classificatory disposition of the speaker in the way sketched above. Under-determination would remain.

5 Removing the stumbling block

When, in good faith, we think through what bare assertion looks like, it must be admitted there is a sheer strangeness to it which is absent from most talk. If a stranger (or even friend) approaches one in the street (or any other location), gets one’s attention, and says, with recognisable seriousness while looking into one’s eyes, “the leaves are green,” one may understand that an English sentence has been uttered, and even the meanings of the words uttered, but one will not comprehend the utterance in the sense of comprehension with which we are concerned. What exactly counts as being green here? Is the speaker wielding the expression with a classificatory disposition at all? Or is he rather more like the King’s Cross drunk who repeats the word “cake” because he likes the sound of it? In such circumstances, if there is something to comprehend at all you will struggle

²⁶⁴ The condition of telling the truth, so not lying and not being incompetent, will be supposed throughout. The speaker says something true, in some sense. What is providing problems is what counts as making the sentence true for the purposes of the conversation.

²⁶⁵ Recall that bare assertion is the practice of uttering a sentence with the sole end of getting a hearer to think something. Also recall that, as we saw at the end of Chapter VI, the doubters adopt Lewis’ assumption.

to comprehend it. This is an odd thing to do because it is not ordinarily done. Those who say random sentences to random individuals at random times and places are not normal speakers and are of questionable intelligibility.²⁶⁶

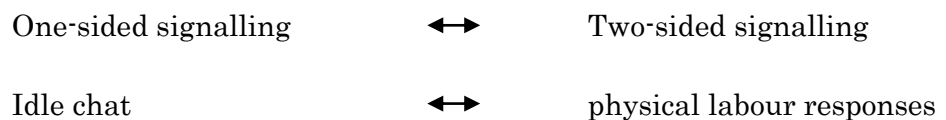
Nonetheless one might attempt the following very straightforward defence of Lewis' assumption. One can utter a sentence right here and now and say something comprehensible. For instance, I can say to you right now, "My flat has just been repainted," and what I said can be clear enough even though there was no intent for it to be employed in any particular stretch of reasoning. It is *this* phenomenon that best supports Lewis' assumption, one might think. But this quick defence is no such thing. Firstly, what *does* count as being repainted? Was it merely a touch up of scratches and dents? Was it the outside or the inside? Was it just the windowsills? The whole shebang? Could it just be given a gloss? Etc. You don't know the answers to these questions. You don't even know what exactly counts as being *my* flat. So it is questionable whether this is really a case of comprehension in the sense with which we are concerned. Secondly, the sentence was given an introduction and bookended from the surrounding text. I said before the sentence, "For instance," and I separated the sentence from the rest of the text with speech marks. There were also other preliminary remarks which helped frame the sentence as something to be understood as an attempted illustration of a particular point. To understand this point one needs to understand the debate we are currently partaking in. A sentence thus presented is *not* a case of bare assertion. I have taken great care in how I presented it, constrained as I am by my ends that include being clear in explaining a move in the current discussion. But then it cannot be used in defence of Lewis' assumption because for that we need a genuine case of bare assertion which is assuredly comprehended. Our example meets neither condition.

To avoid this problem, we need to consider uses of sentences that are not so framed. A more promising reason to accept Lewis' assumption shows itself in the above quotation when Lewis says, "there is a continuous spectrum from verbal signalling to idle chat." In this remark he claims there is a spectrum with two ends. On one end there is verbal signalling and on the other is idle chat. Verbal signalling is two-sided coordination: in it hearers are required to make particular

²⁶⁶ (Goffman 1963, Part 3) and (Goffman 1983, pp.32-46) describe the kinds of constraint under which interlocutors' start up talk on what, to whom, and when.

uses of the words uttered by speakers. Of the label “idle chat” for the other end of the spectrum, observe the following two things. Firstly, it is clear from what else is said in the passage that that end of the spectrum is occupied by one-sided coordination. Notably, if one-sided coordination of the sort Lewis describes is being pursued then it is bare assertion that is being done. Secondly, once this is noted, we can see that Lewis does not use the expression he could have used to label this end of the spectrum, viz. “one-sided coordination.” He instead uses a non-technical locution. There are kinds of talk which this locution, “idle chat,” is used to speak of: conversation between friends or pleasantries with acquaintances or pub talk.²⁶⁷ Talk of this variety. Perhaps we could generalise and say that this kind of talk is that in which there is no physical labour required in response by the hearer.²⁶⁸ That contrasts with Lewis’ example signalling systems. One would have reason to adopt Lewis’ assumption if one supposed, as Lewis evidently does, that idle chat just *is* (a form of) one-sided coordination (and hence, bare assertion). For since idle chat is pervasive, one-sided coordination would be pervasive too. Finally, this kind of talk does not suffer from our “framing problem” because it is naturally occurring talk rather than mid-text example sentences.

In describing a single spectrum from verbal signalling to “idle chat” Lewis collapses what *might* be two different spectra into one spectrum. One spectrum ranges from one-sided signalling to two-sided signalling. The other ranges from speaking episodes which we might call “idle chat” to others in which there is present a physical labour response. Lewis implicitly aligns these spectra like so:



Suppose that these two spectra were not aligned as Lewis supposes. Then our ordinary talk would not supply reason to think there is comprehensible bare assertion. That there is talk which is idle in *some* sense and comprehensible would not mean that comprehensible bare assertion is a typical linguistic phenomenon.

²⁶⁷ I am ignoring the elements of such talk which most definitely are polite speaking episodes: e.g. offering someone a drink, buying a drink, etc.

²⁶⁸ By “physical labour” I mean, roughly, the sort of thing that arises in Lewis’ own examples. These tend to include some sort of movement of one’s body other than one’s vocal chords etc.

Hence, there would not be the reason there appears to be to accept Lewis' assumption.

I am going to argue that Lewis is wrong to align the two spectra: idle chat is not idle in the relevant sense. I will begin by describing two actions that figure in idle chat which are not bare assertions. These are better exemplars than bare assertion for the kind of thing done in idle chat. I argue that these kinds of acts are typical of idle chat in four stages. First I identify pressures to which speakers are sensitive in speaking.²⁶⁹ Second I explain how failing to correctly navigate these pressures is consequential. Third, I describe a phenomenon that arises when one does not know how to navigate such pressures and avoid the consequences of incompetence. Fourth, I explain why if Lewis' assumption were true, this phenomenon should not arise. That it does is reason to reject Lewis' alignment of spectra. We thereby remove what very much appears to be the most obvious reason for accepting Lewis' assumption.

5.1 Two examples of conversational actions: announcing and noticing

One does many things in conversation. I will describe two. Neither is bare assertion but each may be confused with it. If these are representative of the kinds of thing one does in idle chat, we can see there are ways to fail to act competently beyond what would be involved in failing to perform a bare assertion. This in turn implies that, in such cases, one is not aiming to perform a bare assertion.

Firstly, consider the practice of announcing news. A news announcement is an assertion that presents something as newsworthy and seeks to effect a change of state in the hearer. An announcement of news is something which could be introduced by saying, "I have news." I want to describe four features of news announcements which indicate what more one is trying to do than say something true and informative. Firstly, it is a striking feature of news announcements that one can often tell what sort of news is going to be offered, and sometimes, even the news exactly. A good explanation of this is that only certain select things count as news, hence if a news announcement is being made, there can only be certain sorts of thing that will be announced (perhaps, by this person, to you). Secondly,

²⁶⁹ The sociologists whose observations I appeal to here employ the same method as Austin. They look for the slips between cup and lip. See for example: (Goffman 1956, p.265), (Garfinkel 1963, p.187), and (Schegloff 2007, p.20).

something presented as news can be a basis for admonishing the announcer precisely because it does not qualify as newsworthy (even if it is not already known). It invites the question: “why are you telling me this?” or “Big deal” or something similar.²⁷⁰ When one announces news one seeks to avoid that reaction. So one has to have a sense for what is newsworthy.²⁷¹ This is also reflected by the fact that we avoid and seek situations in which we will become newsworthy. We know that people talk and what they announce to others and what they will not deem newsworthy and so will not mention. Thirdly, what counts as news depends upon to whom one is speaking. Something that is newsworthy has to be a “non-ordinary’ event for [the] particular ethnographic setting” of the recipient.²⁷² For example, if two nurses are having an exchange in a hospital corridor, that there was some death in the hospital is not news. Presented as such it would raise a question like, “why are you telling me this?” But clearly, that death would be news to someone even if not the nurses (that question would not be one *they* will ask).²⁷³ Fourthly, there are circles of people who trade in news between themselves so that if something that the group counts as newsworthy happens, then it is expected that it will be something that is announced to other members of the circle. If they do not do so, that can be a negative reflection upon the relationship:

People can get annoyed if you don’t tell them something that they nonetheless find out; they say “Well why didn’t you tell me?” And if you say “I knew you would hear anyway” they nonetheless figure that you were somehow derelict, that you weren’t monitoring the world for them as you should. (Sacks 1992a, p.173)

Notice that, in particular circumstances, if one is aiming to announce news, and one is doing so competently, there are only certain things one could be doing with one’s words. For example, “a death” as in “there was a death” can be operated with many application criteria (for all that the English expression allows).²⁷⁴ Does someone’s heart ceasing to beat count as death? Does someone who was taken to be dead by standard procedures but who woke up alive in a morgue count as dead during the time she was thought to be dead? Does someone whose brain is dead but

²⁷⁰ (Sacks 1992a, p.89). See also (Sacks 1992a, p.13).

²⁷¹ (Sacks 1992, p.68)

²⁷² (Terasaki 2004, p.189)

²⁷³ (Terasaki 2004, p.183)

²⁷⁴ Given our earlier argument from Chapter IV.

whose heart is beating count as dead? Does someone who has had massive brain damage leading to severe personality changes (e.g. equivalent of a frontal lobotomy) count as dead? If someone is presenting something as news, then, someone has to be speaking of something that is a “non-ordinary’ event for [the] particular ethnographic setting.” In given circumstances, operating one’s words “a death” in some ways just will not be a way to do that. Someone’s heart ceasing to beat for a few moments may be reported as a temporary death by the heart owner when he retells what happened to his friends. It may not be so reported by the surgeon if such an occurrence is not all that unusual for the workaholic surgical team.

Generally, if the speaker is being rational (and competent) in making an announcement, there are only certain classificatory dispositions toward the expressions she produces which, in the circumstances of speaking, would mean that by this means she is doing an announcement. Although many ways of operating words are ways of saying truths, they do not qualify as competent news announcements. For that reason the speaking episode will provide severe rational constraints on the classificatory disposition of the speaker when the speaker seeks to do this kind of thing in particular circumstances.

A second example of an action that is done in conversation is “noticing” something.²⁷⁵ One may utter an indicative sentence to indicate that one has noticed something in one’s surrounding circumstances. One does this in an attempt to get an explanation out of someone for how that is so. Or to share in the oddity of it. But this can only be done if there is something odd about that on which one (apparently) comments. Otherwise it will be difficult for the recipient of the “noticing” to understand what it is one finds noticeable about it. Like newsworthiness, noticeability is not something that everything that is the case and which is not known by one’s interlocutor is.²⁷⁶ So if one is uttering a sentence in an attempt to publically notice that something is so, to get an explanation of it from someone, or to share in its oddity, one cannot be using one’s words, on that occasion, any way one likes. For instance, suppose I and my interlocutor are walking past the St Pancras hotel and we notice two people lying in the garden outside the restaurant apparently curled up beside one another. One of us might

²⁷⁵ See (Schegloff 1988, p.120) and (Antaki 1994, p.76).

²⁷⁶ It is not unusual to “notice” things of which one’s interlocutor was already aware.

say, “They’re just lying there.” The other can see how that is an odd thing to happen. It is a classy restaurant and there are two people lying on the floor. That is unusual. So then I can see how my friend could be using her words. However, suppose that these individuals are not lying down, they are cleaning between the paving slabs. One *could* classify these people as “just lying there.” There is nothing about the English words which precludes this. But such a thing would not be something that is noticeable (because, in some way, out of place). So if when I look over to the restaurant I see some guys cleaning the paving slabs I might then be puzzled by my friend’s remark, given that it appeared to be her attempting to publically notice something out of the ordinary. Given that I do not count her as naive (as if she never thought anyone would do a job that involved lying on the floor like that) I might then find her remark puzzling. If I then figure, oh wait, they’re not cleaning between the paving slabs, they’re just sleeping, then I can see that she is actually using “just lying there” somewhat differently than I originally took her to be doing, and then I can see how she is noticing something out of the ordinary. We can describe this in terms of our earlier talk of a semantic calculus. In one case, I cannot see how she is putting her words into a semantic calculus in which that which she says to be so is out of the ordinary. In another I can. If it looks like she is trying to identify something out of the ordinary, I have to know what is ordinary and I have to locate that of which she speaks within it. If I cannot do this, I find her remark puzzling and I struggle to find her action, her attempted noticing, intelligible.

5.2 Conversing competently

We have two examples of action in conversation. For competent performance each requires more than is required for bare assertion. I would like to generalise from these examples. In this section I am going to describe two things: firstly, some general pressures one is under when conversing; secondly, consequences of failing to navigate these pressures successfully. These will be employed in the following two sections to support the generalisation.

First, the pressures. There is a recognisable shift in one’s obligations depending upon whether one is being left alone or instead being addressed by others who are

talking. To simply ignore an addresser, for example, is rude.²⁷⁷ If one is addressed (someone says, “excuse me,” or calls one’s name) then if one is clearly aware of the summons but one does not react, one cannot not answer it without, in doing that, insulting the summoner.²⁷⁸ Once one is in a state of talk with someone one comes under an obligation to *continue* to pay attention and respond appropriately to their talk. To give signs that one is not paying attention has a similar effect to ignoring someone’s summons when not being able to deny that one is aware of it.²⁷⁹ One cannot leave at just any moment without first flagging-up one’s departure unless one wishes to risk insult.²⁸⁰ This is so even though maintaining this poise can resemble an obliged chore.²⁸¹ One may wish very strongly to leave the engagement and yet one does not do so because of a pressure to leave only at a proper juncture. Furthermore, and most importantly for our purposes, one cannot just speak or respond in any way one could in principle. There is an immense pressure to talk about only things with which one’s interlocutor can do something:

...the individual must phrase his own concerns and feelings and interest in such a way as to make these maximally usable by the others as a source of appropriate involvement; and this major obligation of the individual *qua* interactant is balanced by his right to expect that others present will make some effort to stir up their sympathies and place them at his command. These two tendencies, that of the speaker to scale down his expressions and that of the listeners to scale up their interest, each in the light of the other’s capacities and demands, form the bridge that people build to one another, allowing them to meet for a moment of talk in a communion of reciprocally sustained involvement. (Goffman 1957 [1967], pp.116-117)

If one fails to do this one risks becoming a bore, insulting, rude, inconsiderate, inept, weird.²⁸² Just as paying attention to another’s talk can be a real struggle, so too can saying something with which one’s interlocutor can do something.

²⁷⁷ Recall the significance of “cutting” or “blanking” someone.

²⁷⁸ See (Schegloff 1968, e.g. p.1086). If taken to an extreme, as when someone is directly in front of your face and repeatedly trying to get you to respond to whatever they are doing, the result of being unresponsive is not short of an appearance of derangement (Goffman 1963, pp.107-108). For an extended illustration, albeit fictional, see (Canetti 1935 [2000], pp.16-17).

²⁷⁹ (Goffman 1957 [1967], p.126)

²⁸⁰ (Goffman 1963, p.90)

²⁸¹ (Goffman 1957 [1967], p.115)

²⁸² (Goffman 1955 [1967], pp.37-38)

Something might nag at one's mind such as the appearance of one's interlocutor, their past, their sexist tendencies, the time they screwed you over. Or perhaps something about oneself: something is on one's mind that has happened which one cannot stop thinking about. Or one has work to do that one wants to attend to or one has just had an argument with someone which has left a dent in one's attention. Many times when one talks with others one has to wrench one's mind onto something that others will know how to speak about.

For example, I remember an occasion on which I attended a drinks reception that followed a talk I had attended. Some of those present at the drinks reception had been present at the talk and some had not. I found myself in the situation of having a three party conversation with one person who was present at the talk and one who wasn't. The one who was present began to ask me questions about it. I instantly said that this was not the place because I knew that the other participant would be unable to participate and would find our discussion hard to follow. This was partly because she was not familiar with the topic of the talk and partly because she just wasn't there. She nonetheless said it was fine and she was interested. So we talked a little about the talk. But within a minute or so the one who had not attended the talk walked away from the exchange, it being clear from her silence and bored facial expression that she had "lost track" of what was being talked about. I had worried that that would happen. And it did. We are aware that this is a prospect. When a newcomer joins a conversation, she can be "filled in" or she can be stranded at the border of the encounter.

The prospect of failing to act competently in conversation is a potent influence on our behaviour because failing to do so is consequential for us. If the reader's biographical memory has not alerted the reader to this already, an illustration can be found in the anxiety felt by Harold Garfinkel's students when, as homework, he asked them to go home and have certain kinds of conversation. One assignment required that students pretend not to understand what someone means by a given word. They were to do something when it was not really required, a way of acting less than competently at talk. They were to do this in such a way that those who witnessed it could not "leave the field"; that is, they could not interpret what was taking place as a joke or a performance.²⁸³ It had to look like the real thing. Many

²⁸³ For the locution see (Garfinkel 1963, p.219).

students were anxious enough to refuse to do the assignment. We can see why they were apprehensive by looking at two of the exchanges reported by Garfinkel:

Case 1:

The subject was telling the experimenter, a member of the subject's car pool, about having had a flat tire while going to work the previous day.

(S) I had a flat tire.

(E) What do you mean, you had a flat tire?

She appeared momentarily stunned. Then she answered in a hostile way: "What do you mean, 'What do you mean?' A flat tire is a flat tire. That is what I meant. Nothing special. What a crazy question.!"

Case 6:

The victim waved his hand cheerily.

(S) How are you?

(E) How am I in regard to what? My health, my finances, my school work, my peace of mind, my...?

(S) (Red in the face and suddenly out of control.) Look! I was just trying to be polite. Frankly, I don't give a damn how you are.²⁸⁴

We know that these kinds of response are possible if we fail to be competent in linguistic exchanges. Talking is a delicate matter, even in idle chat. Those who are no good at paying attention, speaking appropriately, and responding appropriately, gain a reputation for being so inclined and we are aware of this. The pressures of etiquette in talk are a potent factor in our linguistic lives because there are consequences for habitually violating them:

...if you come home and report what the grass looked like along the freeway, that there were four noticeable shades of green some of which just appeared yesterday because of the rain, then there may well be a tightening up on the

²⁸⁴ (Garfinkel 1967, pp.42-44)

part of your recipient. And if you were to do it routinely, then people might figure that there's something odd about you; that you're pretentious. You might find them jealous of you; you might lose friends. (Sacks 1992a, p.219)²⁸⁵

5.3 The phenomenon of not having anything to say

Given what competent conversing involves, and given the risks there are in incompetent conversing, that a familiar kind of situation can arise in an exchange should not be surprising: one does not have anything to say. First dates, forced conversational encounters with colleagues with whom one has nothing in common, family get-togethers for otherwise estranged family members, encounters with those present at a party once one has gone through niceties: each involves bringing together interlocutors who might find it painfully difficult to sustain a conversation, each attempt to do so floundering as the hearer does not know what to do with what the speaker is saying; the speaker struggling to find something to say with which the hearer can become engaged. Someone tells a joke but one cannot see how it is funny.²⁸⁶ Someone remarks upon something she finds interesting but one cannot see what to say in response to it other than a mild acknowledgement, or worse, one thinks that that ought not to be something worth mentioning at all (e.g. comments on the lecturer's figure).

In such situations, it is still the case that there is another sense in which one does have *something* to say. Nothing physically stops one from reporting on any number of things or asking any number of questions. But when one has nothing to say in the more intuitive sense, one has good reason not to try to do such things in the circumstances when those circumstances are correctly describable as ones in which one has nothing to say. What reasons are these? Generally, one knows what would happen if one were to try making certain remarks, ask certain questions and so on, and one does not want what *would* happen to actually happen.²⁸⁷ Here are some

²⁸⁵ See also (Goffman 1957 [1967], p.135) and (Goffman 1963, pp.143-144).

²⁸⁶ The conversational phenomenon of someone telling a joke, reaching the punch-line but it going unrecognised as such, should be familiar. This is an example of trying to do something and failing in conversation. If one suspects that this will happen, one will not tell the joke.

²⁸⁷ Here are two examples. First: "A woman was collecting research materials by going into parks with her children and just starting conversations with people. One of the things she reported was how the conversations began. And one recurrent way they began was, there would be a woman sitting on a bench. This woman would go over to the bench with one of

examples. One knows that if one jokes about something, which will involve treating something as unserious, and this something turns out to be of serious interest to one's interlocutor then one can insult them by indicating one does not take seriously what they do; one might also end up presenting oneself as unknowing or naive. For example, one might make a joke about the soulessness of working as a consultant, only to discover one's interlocutor and her friends are in fact consultants. One might know that if one mentions a given recent political event that occurred in South America that one's interlocutor will do no more than show minimal acknowledgement. Not knowing the significance of the event, and not wanting you to spend minutes explaining it to them, they cannot think of anything to say about it that would be worth saying. One might know that if one asks someone certain questions they will find it intrusive or rude (e.g. asking after their progress in learning Mandarin may only be condescension at this person's "substitutes for action") and if one asks certain others then they will find one's question boring and not want to persist too far in answering it (e.g. one plays it safe by speaking about the weather). One knows that if one does not talk about the same topic on which she has been speaking for the past two minutes, whilst one has been giving steady acknowledgements to her story, one will in doing that indicate one's lack of interest in what she is saying and in some way upset or insult her. One knows that if one asks a question of which one knows one's interlocutor is highly knowledgeable but which will require some explanation for one to understand the answer, this may be an illegitimate demand to make on one's interlocutor in circumstances in which they are not being paid for the lesson.

Generally, when for all the things one can think of saying one can see there is risk of a consequence of the aforementioned sort, none of the options for what one in

her children, and sit down. The little boy would wander around for awhile, then he'd come up to her and she'd say, 'Go away, I want to sit and rest.' Sometimes he'd go away, but sometimes he'd sit there, annoyingly. And then the other woman would turn to her and say, 'They're all like that, aren't they.' And she'd say 'Yea' and they'd get into a conversation. I asked her, 'Did you ever say no, or something like that?' And she said 'Yeah, when I first got out of college I was all full of information. People would say that to me and I'd say 'Well I don't know, my kids aren't.' And they'd always stop talking right then and there.'" (Sacks 1992, p.25) Second: in the television show *Peep Show* Mark and Sophie sit in a restaurant. Mark's internal dialogue runs as follows: Oh, my God, we're not saying anything! We've got nothing to say, we've skipped 20 years. We're one of those couples you see. Got to say something. Anything! Then Mark says the following, "So, w-w-w-what do you think of the... chairs? Quite... OK, aren't they?" To which Sophie responds, "Yeah, they're pretty OK chairs." The tension in the scene is recognisable and no doubt familiar to the reader. There is a definite sense in which Mark is acting incompetently in the situation.

some sense could say are really things one can bring oneself to do. So one finds oneself not knowing what to do. One finds oneself not having anything to say even though one may well be obliged to say *something* because one is in a state of talk with this person. The result is a marked awkwardness. At parties, family get-togethers, and so on, one is engaging in something especially worthy of the title “idle chat” because one is often just “making conversation.” Yet these are the locales in which the kind of work I am describing is most noticeable. An awareness of this can sometimes even be reason enough to avoid the whole occasion.²⁸⁸

5.4 The forgotten work in idle chat

Return now to Lewis’ assumption. The assumption is implicitly supported by the following line of thought: idle chat is idle in the sense that one engages in bare assertion; idle chat is comprehensible in the specific sense outlined at the beginning of this chapter; hence, bare assertions are comprehensible. Therein lay a trouble for the proposal that it is because speaking episodes are polite that premise (2) of TIA is false. Idle chat is talk whose comprehensibility could not be explained by the politeness of the talk. However, if idle chat encompasses bare assertion then speakers in idle chat aim only to utter sentences which might induce beliefs in one’s hearer. Firstly, we have our two examples of conversational action for which this is not so: announcing and noticing.²⁸⁹ Each occurs in idle chat. So these are two respects in which Lewis is mistaken. But furthermore, these are no special cases. If idle chat did allow for bare assertion then we should not expect the phenomenon of not having something to say to arise in most cases in which it does. For in those cases, one *can* say something in the sense that Lewis describes. One does not fall short of having something to say in those circumstances in the sense that one cannot find a way to do what Lewis proposes is a main preoccupation in idle chat. But one does have nothing to say in these circumstances because despite one’s capacity to do these things, one knows what would go wrong if one were to try to do as Lewis suggests. Therefore, Lewis is wrong to suppose that all one is aiming to do, in paradigmatic cases of idle chat, is utter a sentence and for one’s hearer (possibly) to form a belief. For if one cannot achieve more than this one would

²⁸⁸ (Goffman 1983, p.32)

²⁸⁹ Other examples can be found in the conversation analytic literature. For an introduction see (Schegloff 2007, chapters 1, 2, 3, and 5).

rather refrain from speaking altogether.²⁹⁰ Hence Lewis' alignment of spectra should not be accepted. We would be closer to the truth if we aligned the spectrum from one-sided to two-sided coordination with a spectrum from pathological to normal speaking rather than with a spectrum from idle to physically demanding talk.

5.5 Objections and caveats

There are two objections to the argument just given that I will consider and two caveats I will make. The first objection is this. Surely not having something to say is just a case of etiquette and does not affect *comprehension* (in the sense we are employing). Someone can assert a sentence and say something intelligible even if they are being rude in doing so. There is a difference between "why are you telling me that?" and "what are you telling me?" However, while it is true, there is this difference, I do not need to deny that one can be comprehensibly rude or boring in order to use the pressures we are so clearly guided by in our verbal conduct to show that idle chat is not a case of bare assertion. All that matters is that we are indeed guided by such matters to a tremendous degree: so much so that if we cannot live up to them, sometimes we would sooner not say anything and/or leave than speak and make fools of ourselves. If one wants to persist in claiming that we engage in comprehensible bare assertion, one needs to find examples of that. But idle chat is not a contender if the argument from not having something to say is granted. A second objection is that perhaps speakers just do not *want* to say anything. If so, then having nothing to say could be explained by Lewis as a circumstance in which someone does not want to say anything even though she could do so quite intelligibly. However, this does not fit well with the awkwardness that accompanies situations in which one needs to say something but one does not have something to say. Unless the speaker enjoys the awkwardness, and I am supposing that most of us do not, the speaker will not want to invite it. So this alternative account has us attributing desires to speakers they do not have.

The two caveats are as follows. First, I acknowledge that there may be speaking episodes which are neither polite speaking episodes nor bare assertions, yet in them the hearer understands the speaker. The current argument shows at most

²⁹⁰ I ignore, what now seems to be so, that the hearer may not know what belief to form if she cannot discern what more the speaker is doing beyond what Lewis proposes.

that we do not engage in bare assertion (typically in idle chat). But that does not mean we *are* engaging in polite speaking whenever comprehensible. The aim of the above argument was only to undermine one tempting justification for denying that one can respond to the incompatibility argument in the way I have proposed. The second caveat is that the appeal to questions of conversational etiquette may be somehow Euro-centric and so not culturally general. Perhaps there are societies in which there are so few constraints on how, when, and on what interlocutors speak to one another that they plausibly engage in bare assertion. Perhaps in such societies comprehension is perfectly feasible. If examples of this were found then the current argument would need amendment.

6 Summary

I have presented a kind of end which, if a speaker pursues it in rich enough circumstances, places rational constraints on her classificatory disposition toward the sentences she utters. This provides us with material to discredit the gloss on the speaking episode that gave credence to premise (2) of TIA and thus a basis on which to challenge Stenius' attitude. I also sought to meet a challenge posed against this strategy. The strategy commits us to the claim that there are no comprehensible impolite speaking episodes. This claim faces "the stumbling block": apparently, we engage in a practice of comprehensible bare assertion. If it were accurate to align idle chat with bare assertion then everyday life would furnish us with easy counterexamples the claim to which we are committed. I have argued that that alignment cannot be accurate because if it were then the phenomenon of not having anything to say would not exist (in idle chat). That it does exist indicates that speakers are guided therein by more pressures than they would if bare assertion were a practice of theirs. By undermining this alignment, our response to TIA gains a *prima facie* plausibility which it would otherwise lack.

Admittedly, this is not altogether satisfactory. It would have been better if I could have provided an argument or observation which shows that there are no comprehensible impolite speaking episodes. I suspect the formulation of such an argument would require a study of ordinary talk of a shape I am not yet certain. This will have to remain work for the future.

Conclusion

We first began our discussion with the simple model of communication. We noted that within that model, OS seems to be without an occupation and at risk of sabotaging the work done by other properties we know words (at least on occasion) to possess. Although the simple model of communication is not incorrect, it is an abstraction. No real communicative exchange is as bare bones as the model would suggest. Everyone knows that. But it is easy to suppose that the elements of that model operate, and hence can be understood, autonomously from what has been omitted. This easy supposition should not be made.

In order for a language to enable valid (in application) reasoning there must be, built into the language, application criteria for expressions which form non-contingently balanced arrays. But there are no such arrays. So reasoning done with a prefabricated language will be invalid (in application). So what I called “calibration” is required upon use of the expressions of the language. This gives us reason to doubt, and I think, reject the hypothesis.

A consequence is that communication cannot be effected by pre-learnt determinate rules relating words and substantial extensions. This induces the worry that OS, understood in the setup of the simple model, undermines the possibility of communication. However, the very reason why speakers face the chore of calibration doubles up as an explanation of how Stenius’ attitude can be mistaken. A speaker who aims to produce words with which to reason in an identifiable semantic calculus needs to operate those words in certain ways. Provided that she so aims in rich enough circumstances, she will as a rational speaker operate those

words only in those certain ways. A hearer who understands this can use this fact to become aware of the substantial extensions of the speaker's words.

One may feel uneasy at so much reliance upon rational constraints. To (begin to) address this I have provided reminders of just how rich a socialized talker's circumstances usually are. A Quinean landscape may well provide only material pressures on inhabiting talkers; too few to make their utterances comprehensible to their fellow inhabitants. But a Goffmanian landscape is laced with "a vast filigree of trip wires which individuals are uniquely equipped to trip."²⁹¹ Once reminded of this, it is not so farfetched to suppose that it is because interlocutors are motivated "to preserve everyone's face," when at risk of acting incompetently at talk, that "they then end up acting so as to preserve orderly communication."²⁹²

If this is at all correct, there is an interesting implication. If progress is to be made on lexical semantics (as contrasted with compositional (i.e. logico-syntactic) semantics) then one would do better to conduct micro-sociological studies of particular speakers, in particular places, pursuing particular projects, with particular methods, than one would looking at psychological studies riddled as they are with their own variant of the hypothesis at the level of "information" to be processed. A psychological theory, as we find in psychological further factor views that maintain the hypothesis, attempts to identify general ways that human thinkers do things. A micro-sociological study respects the idiosyncrasies of time and place, the materials with which talkers work their craft.

I close by acknowledging an absence from the foregoing discussion. I have not addressed the use of written words in the form of books and newspapers and other mass produced items used for communication. I do not think I need to hold a different view of written from spoken words. When Cappelen and Lepore claim that if "radical contextualism" were true, it would be miraculous if two different readers understood their book in the same way, it is worth bearing in mind two things.²⁹³ The first is that very few people have and will ever read their book. Only those with an immensely rich shared education and who have an awareness of the debates to which that book is intended as a contribution will read it. It is as part of the network of issues that are alive in that debate that the book will be understood.

²⁹¹ (Goffman 1971, p.106)

²⁹² (Goffman 1976 [1981], p.19)

²⁹³ (Cappelen and Lepore 2005, pp.126-127)

The second is that, it is far from obvious that everyone does agree on what the book says (at least not on first reading). The same possibilities for multiple readings are available for words used in writing and the same motives arise for calibration, and calibrating for use by someone else, as we find with spoken words.

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