

THREE NOTIONS OF TACIT KNOWLEDGE

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Abstract

My principle contention in this paper is that there may also be more than one way to construe the ‘mirroring’ relation which—I agree with Evans—obtains between a speaker and a (correct) meaning theory for her language. Evans elaborates his own conception of that relation in a later paper (1981a). His proposal has a strong *mentalist* flavour, which probably repulsed many readers at the time, but which—with the hindsight the past 25 years of energetic cognitive science—would strike many today as admirably prescient. I side with the Luddites on this question, and I shall argue in §3 that the mentalist aspect of Evans’s proposal probably represents a wrong turn. However I hope also to show that the principal ingenuities of his account can be detached from the unhappy mentalism, and in §§4-6 I shall offer two alternative construals of the ‘mirroring’ relation which incorporate those ingenuities. I shall not *defend* the claim that meaning-theories do (or should) mirror speakers’ competences in either of these senses: my ambition here is only to defend the coherence of anti-mentalist construals of Evans’s idea.

Keywords: Tacit knowledge, Implicit knowledge, Gareth Evans, Meaning theory

Resumen

La tesis principal de este artículo es que también puede haber más de una forma de construir la relación ‘reflejar’, la que, estoy de acuerdo con Evans, se establece entre un hablante y una teoría (correcta) de su idioma. Evans elabora su propia concepción de esta relación en un trabajo posterior (1981a). Su propuesta tiene un fuerte tono mentalista que probablemente produjo rechazo en muchos lectores de la época pero que—con la perspectiva que dan 25 años de potente ciencia cognitiva—hoy le resultaría a muchos admirablemente premonitorio. Estaré del lado de los opositores en esta cuestión y argumentaré en §3 que el aspecto mentalista de la propuesta de Evans supone un paso en falso. Sin embargo, también espero mostrar que las principales sutilezas de su concepción pueden separarse del desafortunado mentalismo y, en §§4-6 ofreceré dos elaboraciones alternativas de la relación ‘reflejar’ que incorporan tales sutilezas. No defenderé la afirmación de que las teorías del significado

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reflejan (o deberían reflejar) las competencias lingüísticas de los hablantes en ninguno de estos sentidos: mi única ambición es defender la coherencia de mi reconstrucción anti-mentalista de la idea de Evans.

Palabras clave: conocimiento tácito, conocimiento implícito, Gareth Evans, teoría del significado

1. A structured meaning theory of the kind we are considering comprises a finite set of *axioms* which licence the derivation of *theorems* specifying the meanings—here assumed to be truth conditions—of sentences. Most such axioms assign semantic properties to sub-sentential expressions; others describe the modes of composition in terms of which they may be combined. Evans articulates his proposal in terms of a very simple and artificial example of such a theory, consisting of 21 axioms. 10 of these assign references to names:

a denotes John,
b denotes Harry,
 etc.,

10 more specify satisfaction conditions of predicates:

An object satisfies *F* iff it is bald,
 An object satisfies *G* iff it is happy,
 etc.,

and there is a single compositional axiom:

A sentence coupling a name with a predicate is true iff the object denoted by the name satisfies the predicate.

This theory, which Evans labels T_2 , describes a language—I'll call it *L*—with 100 sentences: *Fa*, *Fb*, ..., *Ga*, *Gb*, ..., and so on. For every such sentence, we can derive from T_2 a theorem specifying its truth condition:

Fa is true iff John is bald,
Fb is true iff Harry is bald,
 etc.

How can we make sense of the idea that T_2 “mirrors the competence” (1975, p. 26)¹ of a speaker? Every speaker of *L* can be said to know the con-

¹ I do not know whether by using the word ‘competence’ here Evans intends explicitly to suggest anything like (a semantic analogue of) the rather specialized notion invoked by Chomsky and his followers. Below I shall comment that he does seem at least implicitly concerned to distinguish his notion of competence from something like the Chomskyan notion of *performance*. However his lack of allusion to anything like the technical, theoretical aspects of the Chomskyan notion of *competence* incline me to interpret him here as expressing a less theoretically loaded notion of a speaker’s ability to understand a language. I shall also use the word in this loose sense.

tents of T_2 's *theorems*: but can we make sense of the idea that a speaker in some sense '*tacitly knows*' the *axioms* of T_2 ? Evans's suggestion is explicitly formulated to evade an influential Quinean challenge to the very idea of tacit knowledge as it features in Chomsky's work.² (For Chomsky, the notion at issue is usually tacit knowledge of *syntactic* theories, but this difference is irrelevant here.) The Quinean assumes that the only kind of evidence that could be relevant to the question whether a speaker tacitly knows a certain theory is her linguistic behaviour, and further, that linguistic behaviour involves only the use of *whole sentences*. According to the Quinean, this means that we can have empirical evidence bearing on the question whether a speaker knows the *theorems* of a theory like T_2 , but not on whether she in any sense knows the *axioms*. We can dramatize this by considering an alternative meaning-theory for L, comprising a different set of axioms, but licensing the very same theorems. The simplest example of a meaning-theory which is in this way distinct but 'empirically equivalent' to T_2 is the *listiform* theory, T_1 , which consists in 100 axioms, each specifying the truth condition of an L-sentence.

Fa is true iff John is bald,
Fb is true iff Harry is bald,
 etc.

Quine's claim is that no amount of behavioural evidence—involving as it does speakers' use only of whole sentences—could settle the question whether to attribute tacit knowledge of T_2 or of an empirically equivalent theory such as T_1 . Thus, attributions of tacit knowledge are never empirically respectable.

Defenders of the Chomskyan notion of tacit knowledge usually object to Quine's assumption that the only kind of evidence relevant to tacit knowledge is behavioural (and moreover, behavioural evidence involving only the individual speaker himself).³ But as Martin Davies puts it in one of his sympathetic discussions, Evans proposes to meet Quine's challenge "on something like its own terms" (Davies 1987, p. 442).

His proposal is that to ascribe tacit knowledge of a theory to a speaker is to ascribe a certain set of *dispositions*: "one corresponding to each of the expressions for which the theory provides a distinct axiom" (Evans 1981a, p. 328). On this view, tacit knowledge of T_1 consists in possession of "100 distinct dispositions, each one being a disposition to judge utterances of the relevant sentence type as having such-and-such truth conditions" (ibid., p. 328). Tacit knowledge of T_2 meanwhile consists of possession of 20 disposi-

² See e.g., Quine (1970).

³ See, e.g., Fodor (1981, p. 150-2); Chomsky (1986, pp. 243-63).

tions, each one corresponding to an axiom of T_2 . Like the dispositions proposed to constitute tacit knowledge of T_1 , these involve judgements about the truth conditions of sentences. However they are more difficult to *specify* than the T_1 dispositions. Any judgement about a sentence's truth condition will involve *two* of the sub-sentential expressions treated by T_2 's axioms, and so will manifest *two* dispositions of the relevant type. This does not mean that we cannot specify these dispositions, but it does mean that each specification will be a function of others. The dispositions must be "interdefined" (ibid., p. 329). Evans offers a couple of examples to show how this can be done. E.g., the disposition of a speaker, U, which constitutes his tacit knowledge of the axiom specifying the denotation of the name *a* is specified as follows:

$(\prod\Phi) (\prod\Psi)$ if

(i) U tacitly knows that an object satisfies Φ iff it is Ψ

and (ii) U hears an utterance of the form: $\Phi^{\wedge}a$,

then U will judge: the utterance is true iff John is Ψ .

(\prod is a universal substitutional quantifier whose variables have the following substitution classes: Φ : names of predicate expressions in L; Ψ : predicate expressions of the meta-language.)

As expected, this formulation alludes (under (i)) to states of tacit knowledge of other T_2 axioms. But they, in turn, may be characterised in a similar way. E.g., the disposition Evans proposes to constitute tacit knowledge of the T_2 axiom for the predicate *F* may be characterised as follows:

$(\prod x) (\prod \alpha)$ if

(i) U tacitly knows that the denotation of α is x

and (ii) U hears an utterance of the form $F^{\wedge}\alpha$,

then U will judge: the utterance is true iff x is bald.

(Here, the substitution class of ' α ' is names of proper names of L, while that of ' x ' is proper names of the meta-language.)

This too alludes to other states of tacit knowledge, but this process of deference is not vicious: L has only 20 primitive expressions. (Natural languages have a lot more, but even there, they are *finite* in number.)

Immediately after giving these examples, Evans points out that he is using the notion of a disposition in a 'full-blooded sense': i.e., by a disposition he means what these days is usually called the *categorical basis* of a disposition: the non-dispositional property in virtue of which the bearer of the disposition exhibits the pattern of behaviour at issue. Thus e.g., just as the categorical basis of a glass's *fragility* might be the type of chemical structure or bonding it exemplifies, and in virtue of which it is apt to break when dropped, so the states Evans identifies as a speaker's tacit knowledge states are the causal-

psychological (probably neurological) states in virtue of which she is apt to exhibit the patterns of judgement alluded to in these specifications.

When we ascribe to something the disposition to V in certain circumstances C, we are claiming that there is a certain state S which, when taken together with C, provides a causal explanation of all the episodes of the subject's V-ing (in C). (Ibid., p. 328)

Now, the view that dispositions *are* their categorical bases—the ‘Australian view’—is controversial. Many writers prefer versions of the ‘conditional analysis’, according to which for an object to possess a disposition is simply for certain conditionals to be true of it (conditionals, roughly, such as: *if, in conditions C, the glass was dropped, it would break*).⁴ Whatever Evans’s stance on the general debate, his opting for the Australian view in *this* case constitutes the *mentalist* aspect of his proposal I mentioned above, and about which I shall have more to say below. The reason he gives for taking the Australian view here is that if the specifications were “regarded as simple statements of regularity”, then “anyone who correctly judged the meanings of complete sentences would have a tacit knowledge of T_2 ” (ibid., p. 328). That is, if we took a conditional view of the dispositions proposed to constitute tacit knowledge of T_2 , we would not be able to meet the Quinean challenge: tacit knowledge of T_2 would be empirically indistinguishable (or at any rate, behaviourally indistinguishable) from tacit knowledge of T_1 .⁵

Another reason a theorist might have for taking the Australasian view in this case is a desire to respect (a semantic analogue of) the Chomskyan distinction between *competence* and *performance*. On Evans’s account, competence is characterized in terms of performance in the sense that the meaning-theoretic tacit knowledge states are identified as the causal bases of patterns of behaviour. However the competence is still on this account *ontologically* distinct from performance: tacit knowledge is not just a matter of behaving in the right way.⁶

⁴ For some of the relevant debate, see e.g., Shope (1978); Martin (1994); Lewis (1997).

⁵ For what it’s worth, note that the issue here *need* not be articulated in terms of whether the Australian view is correct of the dispositions characterized by Evans. A theorist sympathetic to a conditional analysis of those dispositions could articulate a version of Evans’s proposal simply as the claim that tacit knowledge states are not the dispositions themselves, but their bases.

⁶ Segal (1994, pp. 121-4) argues, in effect, that *no* account which (like Evans’s) identifies tacit knowledge states in terms of linguistic dispositions (or abilities) can sustain a sufficiently robust distinction between competence and performance. Fully worked-out precise specifications of dispositions of the kind Evans suggests would of course be cast not in terms of all judgements speakers actually make, but ones they “would make, if fully functioning and in propitious circumstances” (ibid., p. 122). However, argues Segal, even a fully-functioning speaker in propitious circumstances can be expected to fail to acknowledge

The mentalist aspect of Evans's proposal is even more explicit in the alternative elucidation of Evans's basic idea developed by Martin Davies.⁷ Davies's explication of tacit knowledge alludes *directly* to "underlying explanatory states" (1987, p. 443), rather than indirectly as the bases of certain dispositions. On Davies's version, a speaker, U, counts as tacitly knowing the structured theory T_2 , if and only if the following condition—which Davies calls the *mirror constraint*—holds:

Whenever those axioms of T_2 which suffice to derive theorems specifying the meanings of a set of sentences S_1, \dots, S_n suffice also to derive a theorem specifying the meaning of another sentence S, the states implicated in a causal explanation of U's beliefs about the meanings of S_1, \dots, S_n suffice causally to explain U's belief about the meaning of S.⁸

the grammaticality (and so, fail to understand) such troublesome (but perfectly grammatical and meaningful) sentences as 'The boat sailed down the river sank', and 'The woman the girl the man knew knew went home'. This threatens to compel the dispositional theorist to withhold attribution to such a speaker of tacit knowledge of the meaning-theoretic axioms which licence the derivation of the meanings of such sentences. But this is unpalatable, for two reasons. First, other judgements made by the speaker might well support the attribution to her of just those axioms, and second, the very methodology of the project of attributing tacit knowledge, and of the aspiration to respect the competence/performance distinction, precludes ruling out on these kinds of a priori grounds the *possibility* that the speaker tacitly knows those axioms, *whatever* her performance seems to suggest (*ibid.*, pp. 123-4).

I suggest two ways in which a dispositional theorist might respond to this. First, she might question whether any fully-functioning English-speaker really would fail to understand the example sentences, if she is, as Segal says, "attending fully and trying her best" (*ibid.*, p. 123). No doubt it is true that, as Segal says, "[m]any competent English speakers cannot *immediately* see" (*ibid.*, 122, emphasis added) that the sentences are meaningful, but the dispositional theorist might insist that 'propitious circumstances' include being granted a little time to think about it, and it's not at all clear that a competent English speaker would continue to fail to understand the sentences given time to reflect. Of course, Segal is correct to insist that anyone aiming to respect a competence/performance distinction must allow that it is at least *possible* that a speaker who tacitly knew the relevant axioms could persistently fail to understand certain sentences whose meanings they suffice to derive: but that brings me to my second suggested response. The question of which meaning theory to attribute tacit knowledge of to a speaker will—on the dispositionalist view as on any other—be determined by consideration of a large body of evidence—not just by a couple of isolated cases. So if, e.g., as Segal himself suggests, attribution to a speaker of the axioms at issue is supported by a wide-enough range of her *other* judgements, this should suffice to licence the attribution, even if conflicts with the a small number of particular ones. The dispositional theorist should insist that a speaker should be attributed tacit knowledge of whatever theory comes *closest* to mirroring the patterns of judgements she (would, in propitious circumstances) manifest, even if this theory does not fit those patterns *exactly*.

⁷ See esp. Davies (1986; 1987 and 1989). He relates his proposal explicitly to the suggestion I quoted from Evans (1975) at the beginning of this paper at (1987, p. 446).

⁸ This is a slightly simplified version. See Davies (1981, pp. 53-4; 1987, p. 447).

So how do Evans's and Davies's accounts enable us to meet the Quinean challenge? Evans observes in passing that his account implies that a "causal, presumably neurologically based explanation of [a speaker's] comprehension" (ibid., p. 331) would decisively settle the question which of a set of empirically equivalent theories to attribute to her, for given such an account, we could "simply see whether or not there is an appeal to a common state or structure in the explanation of the subject's comprehension of each of the sentences containing the proper name *a*" (ibid., p. 331). This move is basically a version of the standard, Chomskyan response to the Quinean challenge I mentioned above, and as I said, Evans does not make much of it, preferring instead to show how the challenge can be met on something like the Quinean's own terms.

To this end, he offers three kinds of *behavioural* empirical evidence, two of which I shall discuss.⁹ The first concerns the way in which a speaker *acquires* understanding of sentences, or (what we are assuming amounts to much the same thing:) abilities to assign them their truth conditions. Thus e.g., suppose a subject "had progressed in his mastery of the language to a point where he understood all of the sentences which could be constructed from the vocabulary *a, b, c, d, e, and F, G, H, I, J*", and was then exposed to the sentences *Ff* and *Gf* "in surroundings which, or with instructions which, made it clear what they mean" (ibid., p. 332). If without further training he was then able to assign the correct truth conditions to the sentences *Hf, If* and *Jf* (and no others) that would strongly confirm the assumption that his competence was causally structured a way that corresponds to T_2 rather than to T_1 —that he tacitly knows (part of) T_2 rather than T_1 in Evans's sense—, for that is precisely the pattern of acquisition that someone in the process of acquiring Evans's T_2 -dispositions would be expected to exhibit. If on the other hand, coming to understand *Ff* and *Gf* did not help him to come to understand other sentences containing *f*, that would *disconfirm* an attribution to him of tacit knowledge of (part of) T_2 as opposed to (part of) T_1 . Alternatively, suppose he acquired the ability to assign correct truth conditions to *almost all* of *L*'s 100 sentences, but still could not manage with the few he had not been explicitly taught. This would confirm attribution to him of tacit knowledge, in Evans's sense, of (most of) T_1 rather than of T_2 . The same kind of evidence would support attributions of tacit knowledge construed in Davies's way of one amongst a set of empirically equivalent theories.

⁹ The third has to do with perceptual processing, about which I have nothing to say.

The second kind of behavioural evidence which Evans suggests could be brought to bear on the question which of a set of empirically equivalent theories to attribute to a speaker is similar: patterns of *loss* or *decay* in a speaker's competence. Suppose that some kind of brain damage caused an L-speaker to lose her understanding of all and only L-sentences containing a certain name or predicate. This would again confirm the attribution to her of tacit knowledge in Evans's sense of (part of) T_2 as opposed to T_1 . If on the other hand the brain damage caused the speaker to lose understanding of, say, *Fa*, *He*, and *Kb*, but no other sentences, that would suggest that her competence was not causally structured in a way corresponding to T_2 ; it would *disconfirm* attribution to her of (part of) T_2 as opposed to T_1 . Again, analogues of these points apply in regard to Davies's construal of tacit knowledge.

2. As I mentioned in the previous section, Evans's 'Australian' construal of the dispositions with which he identifies tacit knowledge states—his identification of tacit knowledge states with the categorical bases of dispositions, rather than, say, the very patterns of behaviour the specifications invoke—constitutes what I'm calling the *mentalist* aspect of his account. Elsewhere in his work, Evans exhibits strongly anti-mentalist views about propositional attitudes: consider, e.g., his Fregean anti-psychologism, and his anti-individualism about singular thoughts.¹⁰ He avoids inconsistency here by insisting that, despite his use of the term '*knowledge*', and despite his attribution to tacit knowledge states of representational *contents*, he does not consider such states to be any kind of propositional attitudes.

Evans highlights two features of propositional attitudes in terms of which they may be sharply distinguished from tacit knowledge states. First, they are *inferentially integrated* with a diverse and heterogeneous range of other propositional attitudes and actions. "To have a belief requires one to appreciate its location in a network of beliefs" (*ibid.*, p. 337). In consequence, there is no principled limit to the range of ways in which enjoyment of a propositional attitude may be *manifested*. Evans considers the example of a belief that a certain food is poisonous. An obvious way to manifest this is to avoid eating the food, but there are diverse others: "The subject might manifest it by, for example, preventing someone else from eating the food, or by giving it to a hated enemy, or by committing suicide with it ... It is of the essence of a belief state that it be at the service of many distinct projects" (*ibid.*, pp. 336-7). A rat might—just like a human subject—develop an inclination to avoid the poisonous food. What makes it wrong to attribute the rat a *propo-*

¹⁰ See e.g., Evans (1981b; 1982, Ch. 1).

sitional attitude about the food is that “the rat manifests the “belief” in only one way — by not eating” (ibid., p. 336). Evans suggests that states of tacit knowledge of meaning-theoretic axioms are in this respect like states of the rat rather than like propositional attitudes, because tacit knowledge states are “exclusively manifested in speaking and understanding a language; the information is not even potentially at the service of any other project of the agent, nor can it interact with any other beliefs of the agent (whether genuine beliefs or other tacit “beliefs”) to yield further beliefs” (ibid., 339).¹¹

The second feature of propositional attitudes in terms of which Evans proposes to sharpen their distinction from tacit knowledge states concerns their conceptual *structure*. On Evans’s account, a propositional attitude is a complex of conceptual units, each of which can feature in other attitudes: “we will not be prepared to attribute to a subject the belief that *a is F* ... unless we can suppose the subject to be capable of entertaining the supposition (having the thought) that *b is F*, for every object *b* of which he has a conception” (ibid., 338). (Elsewhere Evans labels this condition of attitude-hood the *generality constraint* (1982, §4.3).) In contrast, the concepts that—qua linguistic theorists—we use to specify the contents of tacit knowledge states “are not concepts we need to suppose the subject to possess” (ibid., p. 339) in this sense. Thus, e.g., the claim that a speaker tacitly knows, say, that an object satisfies *F* iff it is bald does not, according to Evans, imply that she has a general conception of predicate-satisfaction, such as she might combine with other concepts to form genuine thoughts about it. “There is thus no question of regarding the information being brought by the subject to bear on speech and interpretation in rational processes of thought” (ibid., p. 339).

We can summarize Evans’s view as the doctrine that tacit knowledge states are (in Stich’s (1978) phrase) *sub-doxastic*: they play a role in the causal generation of attitudes—in this case judgements about the meanings of sentences—but are not attitudes themselves. They have representational *contents*—those of meaning-theoretic axioms—but those contents are *non-conceptual* in the sense that they do not exhibit the kind of structural complexity which is (essentially) characteristic of genuine attitudes.

3. In my view, the most serious objection to Evans’s proposal is that he has not done enough to justify his claim that the sub-doxastic states he identifies have *representational contents*.

It warrants emphasis why this aspect of Evans’s account is important. His main purpose is to substantiate the claim I quoted at the beginning,

¹¹ Stich (1978) also invokes a notion of inferential integration to characterize a distinction between ordinary beliefs and states of linguistic ‘knowledge’.

that a meaning theory should not only encode a language's semantic properties in the abstract, but also 'mirror' the competence of actual speakers. Now, his proposal brilliantly demonstrates how the claim that a speaker's competence has a causal structure isomorphic to the derivational structure of a *particular* meaning theory rather than another can—pace Quine—be an empirically respectable one. If the idea that the states described by the account enjoy representational contents is controversial, couldn't Evans just dispense with that component of his account? Couldn't his explication of how the causal structure of a speaker's competence can be isomorphic to a particular meaning theory by itself suffice to substantiate the claim that the theory 'mirrors' the speaker's competence?¹² No; the isomorphism by itself does not suffice to substantiate a mirroring relation with the significance Evans has in mind. A good way to see why is to consider that if that were all the mirroring came to, it would be spectacularly *unlikely* that speakers' competences would mirror the derivational structures of meaning theories. In advance of substantial empirical confirmation, really the only reason to expect any kind of correspondence between speakers' competences and meaning theories is the idea that the speakers in some sense or other make use of the *information* encoded in the theories. When Evans suggests as an example of the kind of data a meaning theory should mirror, the fact that speakers can "understand certain sentences they have not previously encountered, as a result of acquaintance with their parts" (1975, p. 26). I presume he intends to articulate just this intuition: i.e., that what speakers get from acquaintance with the parts of sentences is *information*.

So the claim that the states Evans identifies as the bases of dispositions have representational contents is an indispensable part of his account. It is also controversial: the notion of representational content (or *intentionality*) is problematic in general; and the idea that sub-doxastic psychological states enjoy non-conceptual contents is especially so. I'll say a little about the general idea of non-conceptual content below. The point I want to make here is just that Evans's writings on meaning-theoretic tacit knowledge include no defence of this crucial contention. Evans offers no arguments whatsoever in support of the claim the states he so innovatively identifies have representational contents.

¹² Campbell (1982) actually interprets Evans in roughly this way, suggesting that Evans's use of the psychological term 'knowledge' is dispensable: "The theory could be stated ... and elaborated as a purely neural hypothesis which makes no essential use of any psychological concepts other than that of comprehension, or perception of the meaning of, a sentence" (ibid., p. 24).

I take it that this is the point of an objection of Crispin Wright's which seems to me to have been much misunderstood in subsequent literature. Wright's objection is explicitly directed at Evans's and Davies's suggestion that a certain pattern in a subject's acquisition and loss of abilities corresponding to whole sentences would justify the attribution to her of tacit knowledge of the structured meaning theory, T_2 . Wright suggests that the same pattern of behaviour might be equally well explained by attributing knowledge only of the unstructured T_1 , but "supplemented with some appropriate hypothesis, of a non-semantic sort, about the presumed causal structure of the dispositions which T_1 describes" (1986, p. 231). I presume that what Wright means here by such a 'supplementary hypothesis' is a set of statements (or a theory that entails such a set) such as: *a common sub-doxastic psychological state contributes causally to all of the speaker's beliefs about the meanings of sentences containing the predicate F*. In regard to Davies's version, he adds that while it's true that this non-semantic supplement might not automatically "be a detailed, or axiomatic description of the interrelations which the Mirror Constraint would have a theory of meaning reflect", a theorist could find the "materials for the more specific descriptive task" in a *syntactic* theory for the language:

He needs only to ensure that the syntax itself meets the Mirror Constraint: that when, and only when, speakers' understanding of S_1, \dots, S_n and S are interrelated as described, those interrelations in the axiomatic bases and set of recursions for the syntax which suffice to characterize each of S_1, \dots, S_n as well-formed suffice so to characterize S . (Wright 1986, pp. 213-4)

I think the best way to understand what Wright is doing here is to construe it as a response to an anticipated objection to his basic proposal that the patterns of behaviour predicted by the attribution of tacit knowledge of T_2 might be equally well accounted for by an attribution of T_1 together with a non-semantic 'supplement'. The objection is that the attribution of tacit knowledge of T_2 is superior to the alternative offered by Wright because it is more substantial: it provides more detail, in terms of which the theorist working with it can, e.g., predict further patterns of acquisition and loss likely to be manifested by the subject, and in terms of which the attribution might be further tested. On the other hand, in advance of further empirical data, Wright's alternative seems only to point to the idea that the subject manifests some causal structure or other consistent with her behaviour to date. As I understand it, Wright's suggestion is to respond to this objection by arguing that the alternative T_1 —plus-supplement package can be just as substantial as the attribution of T_2 —, because the supplement can easily be formulated in such a way as to licence all the same predictions. All the theorist needs to do

to ensure this is to make sure the patterns of acquisition and loss it predicts in the speaker's semantic competence are isomorphic to a recursive *syntactic* theory for L in the sense elaborated by the mirror constraint. Assuming that a syntactic theory distinguishes the same *structure* in the language as a semantic one, a 'supplement' formulated in this way would licence predictions of the very same patterns of acquisition and loss of semantic competence as the attribution of T_2 ; but the theorist working with the former does not attribute non-conceptual contents to the states involved.

Davies has responded to this objection of Wright's by strengthening his 'mirror constraint' in a way that allows a further kind of behavioural evidence to be brought to bear on attributions of tacit knowledge. The basic idea is that if a speaker's beliefs about the meanings of sentences were causally underwritten by sub-doxastic states representing meaning-theoretic axioms, this could be manifested not only through distinctive patterns of acquisition and loss of beliefs about the meanings of sentences, but also through patterns of *revision* amongst those beliefs. Thus e.g., if a subject who tacitly knew a structured meaning theory such as T_2 changed her mind about the meaning of a sentence, we would expect her also to revise her beliefs about the meanings of certain other sentences with which it shared a component (or mode of composition). Davies incorporates sensitivity to this kind of evidence into his account of tacit knowledge by augmenting the version of the mirror constraint offered above with a further condition. U should be attributed tacit knowledge of T_2 if and only if, in addition to satisfying the constraint above, the following is also true of him:

If the axioms employed in a derivation in T_2 of theorems specifying the meanings of S_1, \dots, S_n are sufficient also for a derivation of a theorem specifying the meaning of S , then the states of U implicated in a causal explanation of his beliefs about the meaning of S_1, \dots, S_n together with a description of a revision of his belief about S would suffice for a causal explanation of revisions he would then make in his beliefs about S_1, \dots, S_n .¹³

The strengthened mirror constraint refines the notion of isomorphism between causal structure in a speaker and derivational structure in a theory articulated by Davies's earlier account. However, it does not seem to me to provide any additional support for the claim that the sub-doxastic states which these notions enable us to identify enjoy representational contents. To see this sharply, consider again Wright's suggestion that the very same behavioural patterns as are predicted by an attribution of tacit knowledge of T_2 , may be predicted by an attribution of knowledge of T_1 , supplemented by an

¹³ Again, I have simplified slightly. See Davies (1987, esp. §V).

appropriate account of the causal structure underwriting the behaviour that manifests that knowledge. Above I interpreted Wright as suggesting that all a theorist aiming to provide an account of the latter kind has to do to ensure that his 'supplement' licenses the same predictions as the attribution of tacit knowledge of T_2 , is to base those predictions on a *syntactic* theory for L that mirrors the structure of acquisition and loss amongst the speaker's beliefs about the meanings of sentences. In response to this strengthened version of the mirror constraint, the only modification this theorist will have to make is to ensure that the syntactic theory on which he bases his 'supplement' mirrors the patterns of *revision* amongst the speaker's beliefs about the meanings of sentences, as well as those of acquisition and loss: i.e., he must ensure that the syntactic theory on which he bases his 'supplement' satisfies the strengthened mirror constraint with respect to the speaker's semantic beliefs.¹⁴

My claim, then, is that the principal weakness of Evans's and Davies's mentalist accounts of the relation between speakers and meaning-theories is that they offer no support for the controversial claim that the sub-doxastic

¹⁴ Another author who seems to me to miss the point of Wright's objection is Alexander Miller (1997). If I interpret him correctly, Miller proposes to defend Evans and Davies by questioning whether the theoretical 'supplement' in terms of which Wright suggests the causal structure underpinning a speaker's beliefs might be explained really is, as Wright assumes, "*non-semantic* in nature" (ibid., p. 162). Miller observes that in general, what a theory is a theory of depends not only on the character of its output, but also on the constraints imposed on its construction. Thus e.g., suppose we formulate a theory whose output specifies the amount of money possessed by 100 people, but deliberately ensure that the 100 people we sample are all Scottish women. Although the theorems of such a theory do not mention Scottish women, it is nonetheless, a theory *about* Scottish women. Miller contends that similarly, if Wright's 'supplement' is based on a syntactic theory deliberately formulated to satisfy the mirror constraint in respect of a speaker's semantic competence, then despite the fact that the contents of that theory's theorems concern only syntactic matters, the theory should be considered a *semantic* one.

The problem with Miller's proposal is that the 'supplement' which Wright suggests might explain the structure underpinning the speaker's competence is not this mirror-constraint-satisfying syntactic theory *itself*—the 'supplement' is *based on* that syntactic theory. As I understand it, the supplement is envisaged to comprise claims such as *a common sub-doxastic psychological state contributes causally to all of the speaker's beliefs about the meanings of sentences containing the predicate F*. (And the role played by the mirror-constraint-satisfying syntactic theory in an example like this is to determine the predicate F as the relevant 'linguistic unit' to distinguish.) Even if Miller is right that an ostensibly syntactic theory which is deliberately formulated in such a way as to satisfy the mirror constraint in respect of a speaker's semantic competence counts thereby in a sense as 'semantic in nature', it certainly does not follow that the sub-doxastic psychological states which it helps in this way to identify have representational contents. So if I am right to suggest that that is the issue Wright's objection concerns, then Miller's response is wide of the mark.

states they characterize have the representational contents which the accounts require them to have.

Of course this is not to say that I consider the mentalist accounts to have been refuted. Debate over whether sub-doxastic states should be attributed non-conceptual contents rages in other areas of philosophy—notably in the theory of perception—and it is quite possible that general considerations emerging from those debates might be brought forcefully to bear on this one. Consider, e.g., John McDowell's critique of the idea—also associated, of course, with Evans—that perceptual experiences enjoy non-conceptual contents which, in some epistemically significant sense, underwrite associated perceptual beliefs. At the heart of McDowell's critique is the contention he borrows from Sellars and Davidson, that the relata of any kind of *justificatory* relation must be fully conceptual, in the sense that they may be brought “under the self-scrutiny of active thinking” (1994, p. 53). If McDowell is right about this, then insofar as Evans intends the contents of a speaker's meaning-theoretic tacit knowledge states to contribute to the *justification* of her judgments about the truth conditions of sentences, the claim that such states have non-conceptual contents is vulnerable to McDowell's attack.

Of course of the other hand, many philosophers of perception find McDowell's critique of the notion of non-conceptual perceptual content unpersuasive. Could any of the considerations raised in *support* of non-conceptual content in the perception debate be transposed into support for Evans's position on meaning-theoretic tacit knowledge? It is possible, and I do not have anything like conclusive reasons to rule it out. But the issues seem disanalogous in a couple of significant respects. First, there are, I take it, strong *prima facie* grounds to presume that perceptual experiences have representational contents. A perceptual experience just does appear to put one into an intentional relation with whatever it is one is perceiving. So the main controversy about the idea of non-conceptual perceptual content is not whether perception involves content—it's whether that content is non-conceptual. There is no analogous *prima facie* temptation to assume that we enjoy states with the contents—whether conceptual or non-conceptual—of meaning-theoretic axioms. It does not in any sense *appear* *prima facie* to an understander of a language that she grasps meaning-theoretic axioms.

A second disanalogy concerns the theoretical ways in which the posited representation relations are explicated in the respective debates. The contention defended by friends of non-conceptual content in the perception debate and elsewhere is usually that non-conceptual contents are attributed to states whose realization *co-varies* in some significant causal respect with

that of whatever they are proposed to represent. Evans's suggestion, on the other hand is not that the realization of meaning-theoretic tacit knowledge states co-varies with the 'semantic facts' they are proposed to represent. Not only is this notion of causal co-variation with semantic facts only dubiously coherent, as we've seen Evans actually articulates a quite different model of the relation, in terms of the isomorphism he explicates between causal structure in a speaker and derivational structure in a theory. Whatever the independent merits of that model, then, it seems unlikely that it can be supported by considerations transposed from debates over other notions of non-conceptual content.

4. I began this paper with a claim of Evans's with which I said I agree: a meaning theory should not only encode the semantic properties of a language considered in the abstract, but should also in some sense 'mirror' the semantic competence of its speakers. I have argued that Evans's 'mentalist' elucidation of this mirroring relation is unsatisfactory—or at any rate, stands in a crucial respect in need of more defence than Evans and his supporters have offered. However I think the mentalist aspect of Evans's account is detachable. In the remainder of the paper I shall try to demonstrate this by outlining two alternative ways in which the essentials of his account might be construed. I shall not be defending either of the resulting conceptions of the relation between speakers and meaning theories in any detail: my purpose is really just to defend the coherence of anti-mentalist construals.

The first version I'll call *minimalism*. (Critics might want to demean it as tantamount to a form of *behaviourism*. I'll say a little in response to that critical response below.) Consider once again the interrelated dispositions in terms of which Evans characterizes tacit knowledge states. Evans specifies these dispositions in the usual way, in terms of the *conditionals* true of their typical bearers. As I mentioned in §2, different theories of dispositions are available. According to versions of 'conditional analysis', an object has a disposition simply if such conditionals are true of it. On the opposed, 'Australian view', a disposition is the categorical (non-dispositional) property that causally accounts for the truth of those conditionals. Evans's opts in this case for the Australian view, and as I observed in §2, it is this move that constitutes the mentalist aspect of his proposal. The view I'm calling minimalism appropriates Evans's dispositional explication of an isomorphism between theory and speaker, but avoids the mentalism by construing the dispositions *conditionally*. If you like, minimalism is the view that speakers tacitly know meaning-theoretic axioms, but where a speaker's tacitly knowing an axiom just consists in the conditionals in terms of which Evans characterizes tacit knowledge being true of her.

Now, Evans considers and rejects this minimalist version of his proposal: “these statements of tacit knowledge [i.e., specifications of dispositions] must not be regarded as simple statements of regularity, for if they were, anyone who correctly judged the meanings of complete sentences would have a tacit knowledge of T_2 ” (1981a, p. 328). Evans’s thought here, I take it, is that on a conditional construal, the dispositions would not enable us meet the Quinean challenge: tacit knowledge of T_2 construed in the minimalist way would be empirically indistinguishable from tacit knowledge of T_1 . But this is just not true. The minimalist is as entitled as the mentalist to suppose that it is one thing to enjoy the 20 interrelated dispositions that correspond to T_2 , and another to enjoy the 100 corresponding to T_1 . And she is just as entitled as the mentalist to insist that empirical, behavioural evidence could confirm the attribution of tacit knowledge of one theory rather than another, empirically equivalent one. The kind of evidence that could be brought to bear is just that suggested by Evans (and Davies): i.e., patterns of acquisition and loss (and revision) amongst a speaker’s abilities with respect to whole sentences. Thus, e.g., if the speaker understood all of the L-sentences featuring *a, b, c, d, e*, and *F, G, H, I, J*, and then after learning the truth conditions of *Ff* and *Gf* was immediately able to assign the correct truth conditions to the sentences *Hf*, *If* and *Jf* (and no others) that would strongly confirm the assumption that it was (part of) T_2 he tacitly knew, rather than T_1 . This is true here for the very same reason as it is on the ‘Australian’ conception: because it is precisely the pattern of acquisition predicted by the 20 T_2 -dispositions.

I submit, then, that minimalist though it is, the claim that a speaker enjoys dispositions—conditionally construed—corresponding to a particular meaning theory can be empirically respectable. Minimalism evades the Quinean challenge in the very same way as Evans’s mentalism.

Is minimalism about tacit knowledge *behaviourist*? One way to put this worry is to ask whether minimalism sustains anything like (a semantic analogue of) the Chomskyan distinction between *competence* and *performance*. I argued in §1 that although Evans characterizes competence in terms of performance, he is still entitled to insist that the two are *ontologically* distinct, and it might seem that the minimalist is not even entitled to this claim. But against this, the minimalist could insist that there is an ontological difference between *having* a disposition and *manifesting* it. Complex versions of the conditional analysis exist which aim to allow that an object can enjoy a disposition it never actually manifests (e.g., a glass can be fragile without ever breaking when dropped) and that an object can manifest the behaviour

characteristic of a disposition without enjoying the disposition (e.g., something can break when dropped without being fragile).¹⁵

Minimalism is apt to seem behaviourist for a more straightforward reason: the dispositions in terms of which it elucidates the mirroring relation between speakers and meaning theories seem to be behavioural dispositions: dispositions to *judge* that sentences have certain truth conditions. However it is I think moot whether the judgements invoked in Evans's account really count as pieces of *behaviour* in the sense at issue here. He stresses their behavioural expression in the context of his treatment of the Quinean challenge, and I have followed him in this. However when it comes to the constitutive question of what a judgement *is*, shouldn't we insist that a speaker *can* make a judgement about the truth conditions of a sentence without manifesting it to anyone? Even if the judgements invoked in Evans's account are essentially behavioural phenomena, that is surely an inessential aspect of the proposal. Nothing is lost (to either the mentalist or minimalist version) if the allusions to judgements invoked in the consequents of Evans's disposition-specifications are replaced with allusions to states of belief or knowledge about the meanings of sentences, or simply to states of understanding sentences. (Of course, I take it that states of these kinds still count as phenomena at the level of 'performance', so if there is a tendentious issue about the competence/performance distinction, this move does not address it.)

5. The second alternative construal of Evans's basic proposal I want to suggest diverges from mentalism in the opposite direction. Where minimalism comprised a far *thinner* construal of Evans's dispositions than the one he recommends, this theory proposes a far richer construal, according to which they serve to identify states with contents which are, precisely as Evans denies: "brought by the subject to bear on speech and interpretation in *rational processes of thought*" (*ibid.*, p. 339, italics added). I shall call the position *rationalism*.

There are some precedents in the literature of the idea that speakers enjoy rational states corresponding to meaning-theoretic axioms. Chomsky's statements concerning speaker's syntactic competences are a little unclear, but he has often seemed to suggest that they are, basically, unconscious propositional attitudes,¹⁶ and recently Jonathan Knowles (2000) has offered an explicit and detailed defence of the thesis (which he attributes to Chomsky) that "grammatical knowledge is a kind of propositional attitude" (*ibid.*, p. 326). On the semantic side, John Campbell (1982) argues that we should

¹⁵ See e.g., Lewis (1997).

¹⁶ See e.g., his (1980, p. 70; 1986, p. 269).

“expand the range of propositional-attitude explanation” (ibid., p. 20-1) by attributing knowledge in more or less the ordinary sense of meaning-theoretic information to speakers; and Ernest Lepore (1997) claims that speakers have “knowledge (or belief or other propositional attitudes) about the sounds and shapes of the language” which “*play a rationalizing role*” in their “linguistic comprehension” (ibid., 52).

The view that speakers enjoy rational states or propositional attitudes corresponding to meaning-theoretic axioms is problematic for a host of different reasons, most of which I will not go into here. The authors just mentioned manage, in my view, to deflate some of those reasons, but I shall not survey this work in any detail here. One reason for this is that these authors may differ over issues which I do not aspire here to resolve. Another is that they don't say a great deal about the kind of case I'm interested in. E.g., Knowles's (2000) proposal explicitly concerns only syntactic principles, and it is not clear whether all of the considerations he invokes can be transcribed into the semantic case. (Also, he does not say anything about *reasons*.) Lepore's (1997) interest is semantic, but he declines to outline a positive position in any detail. (The purpose of his paper is negative: to refute the opposed 'translationist' position defended by Fodor and Schiffer, according to which linguistic understanding “requires no metalinguistic (semantic) knowledge” (ibid., p. 45)). In §6 I shall be saying a little more about Campbell's (1982) proposal.

All I propose to do in this section and the next is to make a suggestion about a third way in which what I've been calling the essentials of Evans's account might be construed. The suggestion is based on the idea that speakers' understanding of sentences is informed by *reasons* whose contents are in some sense given by meaning-theoretic axioms, and that a meaning-theory should mirror the structure of those reasons. I think this suggestion—which I'm calling *rationalism*—has close affinities to those of the authors mentioned above, but I'm not sure if all rational states need to be *propositional attitudes*, and so I'm not sure whether the position need go so far as to claim that speakers have fully-fledged propositional attitudes corresponding to meaning-theoretic axioms. Of course this depends on what precisely is understood by a propositional attitude. I'm happy to proceed under the assumption that at least relative to *some* conceptions of propositional attitudes, rationalism amounts to the view that speakers enjoy propositional attitudes—if you like, tacit knowledge, though in a different sense to either of those we encountered above—whose contents are meaning-theoretic axioms.

At the end of §3 I aired the suggestion that some of the considerations raised in defence of the notion of non-conceptual content in the theory of

perception might be transcribed into support for Evans's attributions of such contents to the causal bases of the dispositions he identifies. To deflate optimism on this score, I mentioned a couple of respects in which the issues seem disanalogous. However there is a significant respect I didn't mention in which they do seem analogous: in both the perceptual and linguistic cases there is an apparent need to account for the *justification* of beliefs or judgements. Consider the perceptual case. A principal motivation for the claim that perceptual experiences have non-conceptual contents is the need to explain how the empirical beliefs they give rise to can be justified. Even McDowell accepts this need—his own positive proposal is that perceptual experiences have *conceptual* contents which play the justifying role. Similarly, a competent speaker's beliefs and judgements about the meanings of sentences in her language—or if you prefer, her states of understanding those sentences—also seem to be justified. Consider, e.g., the difference between a competent Spanish speaker's belief that 'La nieve es blanca' means that snow is white (or if you prefer, that 'La nieve es blanca' is true iff snow is white) and the same belief held by someone who speaks no Spanish, formed on the basis of an arbitrary hunch or the testimony of a generally unreliable informant. Only the former is justified, and intuitively, it seems natural to suppose that what justifies it is the speaker's understanding of Spanish. As Lepore puts it: "if one understands a language, he must have reasons that rationalize his transitions" (*ibid.*, p. 53).

The reason I did not raise this analogy in defence of Evans's position in §3 is that as we have seen, Evans explicitly denies that the contents of tacit knowledge states as he conceives them play any rationalizing role: on his picture the relation between tacit knowledge and judgements about the meanings of sentences is merely causal. My suggestion here is that a theorist who disagrees with Evans about that might nonetheless appropriate Evans's specifications of dispositions to explicate precisely *which* reasons they are that rationally underwrite particular judgements about the meanings of sentences. The proposal would be that a speaker's judgements about the meanings of L-sentences have not only causal bases, but *rational* ones, and these rational bases correspond to the axioms of a meaning theory. Then, just as on Evans's account, a correct meaning theory is one which mirrors the structure manifested by speakers' dispositions in judgements about the meanings of sentences. The difference is just that the advocate of this account considers the structure thus manifested to be not just causal, but rational.

The advocate of this position can also appropriate Evans's response to the Quinean challenge. That is, like the mentalist and the minimalist, she

can insist that evidence concerning patterns of acquisition and loss amongst a speaker's abilities to understand sentences can confirm or disconfirm an attribution to her of a *particular* meaning theory, rather than an alternative, empirically equivalent one.

6. My discussion in the previous section was intended to be neutral over the question whether speakers are typically *conscious* of their reasons for judgements about the meanings of sentences: whether those reasons can lie, in McDowell's words, "under the self-scrutiny of active thinking" (1994, p. 53). Thus two versions of the rationalist view seem, *prima facie*, available: one according to which they are so conscious and one according to which they are not. It is apt to seem obvious that speakers are not conscious of anything corresponding to meaning-theoretic axioms, so insofar as the rational states I have posited are supposed to have contents corresponding to such axioms, the second version is apt to seem the more attractive. As we've seen, McDowell and others insist influentially that psychological states cannot be genuinely contentful (or indeed, genuinely rational) unless they are consciously known: so an advocate of this view is forced, it seems, to take a stand against this position and defend once again the notion of states of linguistic competence with non-conceptual representational contents—albeit in this case, contents construed not just as sub-doxastic causes, but as sub-doxastic rationalizers.¹⁷

A theorist occupying this position might hope that his characterization of tacit knowledge states as apt to play *rational* as well as causal roles might help to insulate it against various challenges, but actually I think the upshot is rather just exposure to more of them. From one side he can expect another version of the objection I discussed in §3. Attributions of unconscious non-conceptual contents corresponding to, say, the axioms of T_2 , are controversial, and as Wright argues, we can always provide an alternative explanation of the behaviour of such a subject in terms of an attribution of knowledge of only T_1 , supplemented by a non-semantic description of the causal underpinnings of the T_1 -dispositions. The rationalist might reply that the latter explanation is not as good, because it does not explain how

¹⁷ According to a certain kind of functionalism, a subject's *rationality* is constituted by her internal causal structure satisfying certain structural constraints. A theorist who endorsed this kind of conception of rationality, and who was also attracted to this conception of tacit meaning-theoretic knowledge might suggest that the states that constitute the rationalizers of a speaker's judgements about the meanings of sentences might turn out to be the very same ones as Evans's mentalist identifies as tacit knowledge states (though he would, of course, describe them in a significantly different way).

the speaker's judgements are *justified*, but given that the issue is, precisely, whether the idea of such non-conceptual justifiers makes sense, this seems question-begging here.

Meanwhile, from the other side this theorist will confront versions of Evans's arguments against characterizing tacit knowledge states as propositional attitudes. This time the arguments will be that states can be genuinely *rational* only if they are holistically integrated inferentially with a diverse range of others and exhibit the kind of conceptual structure which is elucidated by the generality constraint. Although he is not explicitly concerned with the notion of a reason, Jonathan Knowles (2000) has recently criticised Evans's characterization of propositional attitudes in the course of his defence of the view that speakers enjoy unconscious propositional attitudes corresponding to syntactic principles. However, as Gurpreet Rattan (2002) has argued in response, his case is less than persuasive. Knowles presents two main arguments. First he argues that the reason tacit knowledge states are not inferentially integrated is that they are not *conscious*: yet since Freud, the notion of unconscious (and so inferentially insulated) psychological states has been generally accepted, and such states are generally assumed to be genuine propositional attitudes (2000, p. 339 ff.). Against this, Rattan argues that ordinary unconscious attitudes do *not* exhibit the degree of inferential insulation generally taken to be typical of grammatical tacit knowledge states. On the contrary, they are "ever-present in the general behaviour of the agent, indicating that the unconscious knowledge interacts widely and without regard to either propositional attitude or content" (2002, p. 141). Knowles's second argument (2000, p. 342 ff.) challenges Evans's proposal that genuine propositional attitudes must be composed of recombinable conceptual elements in the manner elucidated by the generality constraint. He argues that the generality constraint imposes too strong a demand: it is satisfied, in general, by thoughts about concrete particulars and their accidental properties, but not by thoughts about abstract objects and their intrinsic, essential properties. And the contents of grammatical tacit knowledge states typically concern, precisely, *intrinsic* properties of *abstract* objects (languages). Rattan replies, convincingly in my view, that thoughts about abstract entities and their intrinsic properties (and about necessary and a priori knowable propositions generally) *do* satisfy the generality constraint (2002, pp. 144-5). Thus e.g., if a subject can entertain the thought that 61 is prime, she can also entertain the thought that 61 *isn't* prime (as well as the thought that 61 is a square root, that 60 is prime, and so on). (Rattan also questions Knowles's contention that tacitly known grammatical principles ascribe intrinsic properties (*ibid.*, p. 145). It is plausible that

certain grammatical principles are intrinsic properties of specific languages. However the contents that speakers are assumed here tacitly to know do not include relativisations to specific languages: they just comprise unqualified grammatical principles.)

I turn next to consider the prospects of the other version of rationalism, according to which speakers are *conscious* of reasons corresponding to meaning-theoretic axioms. I acknowledged above that this seems *prima facie* incorrect. However, it is I think worth noting that we often do enjoy a kind of conscious awareness of the meanings of sub-sentential expressions (and modes of combination), even if such states of awareness do not appear phenomenally to correspond to meaning-theoretic axioms. To bring this out dramatically, consider the phenomenology of an experience which I presume every speaker has had: you begin a sentence, but can't quite remember a word you need to finish it. You know perfectly what you want to say—i.e., you know the meaning of the 'missing' word—you just can't quite recall the word. Then you do. This experience of 'getting it' is a conscious experience which it seems fair to describe as remembering that a certain word has a certain meaning. As McDowell puts it (expressing a view he somewhat controversially attributes to Wittgenstein) a word's meaning can be "an occurrent phenomenon of consciousness" (1991, p. 299).

Now, although experiences of this kind are conscious, the subject undergoing such an experience may not be able verbally to *articulate* what it is she is conscious of, except perhaps by using the word itself (after she remembers it, she can say 'the word *F* means *F*') or using a kind of demonstrative. In this latter case, she might say to herself: 'the word *F* means [...]', where what goes in the '['...']' position is an introspective demonstration of what it was that she had in mind just before (as well as after) she remembered the word. The suggestion here is that speakers can be *consciously* aware of the meanings of sub-sentential expressions, even though what they are consciously aware of may in a sense transcend what they can articulate verbally. Now I have acknowledged that these states do not correspond to meaning-theoretic axioms in the sense of being experienced *as* representing those axioms: however an advocate of this view could hold that they do nonetheless correspond to the axioms in another sense. The suggestion would be that the axioms provide *precisifications* of the contents of these pieces of conscious knowledge.

Campbell (1982) does not discuss the issue of conscious awareness, but I think his proposal comports reasonably well with this one. He points out (*ibid.*, pp. 21-2) that speakers can typically go some way towards explaining

the meanings of individual words, and he also maintains that what speakers can be credited as knowing may transcend what they can articulate (ibid., pp. 29-30). He seems to stop a little short of attributing attitudes to speakers whose contents are *exactly* those of meaning-theoretic axioms: his position seems rather to be that speakers have propositional attitudes about the meanings of sub-sentential expressions, whose contents transcend what they can articulate, and that meaning-theoretic axioms provide *idealizing approximations* of those contents: “in clarity, precision and conceptual power they almost inevitably outstrip the grasp of language possessed by the general run of competent speakers” (ibid., p. 32).

On either Campbell’s version of this view or the one sketched above, then, the conscious states at issue are not quite claimed to have meaning-theoretic axioms as contents: rather the axioms are claimed to provide precisifications or idealizations of the states’ contents. Even so though, the proposal constitutes a perfectly coherent conception of ‘mirroring relation’ between a speaker’s competence and a meaning-theory. The rationalist is entitled to assume that the various conscious knowledge states of the kind at issue enjoyed by a speaker exhibit a *structure* which can be mirrored to a greater or lesser degree by meaning theories in the manner which, I argued in §5, Evans’s dispositions may be used to specify, and to insist that a *correct* meaning-theory for her is one which mirrors her dispositions best.

No doubt there are plenty of objections that could be made against this suggestion. But precisely because it construes the states at issue as ordinary conscious rational states, it does not seem vulnerable to anything like those of Evans and Wright. Regarding Evans’s criteria: it really does seem that states of this kind are inferentially integrated and exhibit conceptual structure. A couple of paragraphs above I suggested two ways in which a subject would try to specify the content of such a state: by using either the expression itself—‘the word *F* means *F*’—or else a kind of demonstrative: ‘the word *F* means [...]’. Even if these specifications fall short of a precise articulation of the content of the state, they surely suffice to demonstrate a conceptual structure: thus e.g., in keeping with the generality constraint, a speaker who can entertain the thought expressed by ‘the word *F* means [...]’ should also be able to entertain the thought she would express by ‘the word *G* means [...]’. They also suggest inferential relations such contents could enjoy to other attitudes: e.g., if the speaker believes that *F* contains one letter, she can then infer the thought she would express by saying (to herself): ‘there is a word containing one letter which means [...]’. Meanwhile, while the suggestion may of course be controversial that these states enjoy

contents which approximate to meaning-theoretic axioms, there should not be any controversy about attributing contents to them *per se* since, apart from exhibiting the features just outlined, they are, like perceptual states, consciously experienced *as* contentful. There is no question of explaining the same data as is explained by an attribution in this sense of knowledge of T_2 , by an attribution of T_1 together with a non-semantic 'supplement', for in this case the data itself is claimed to go beyond the speakers judgements about whole sentences.

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