# 'There's something it's like' and the Structure of Consciousness

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For an experience to be phenomenally conscious is for there to be something it's like; our talk about phenomenal consciousness accordingly is permeated by the expression 'there's something it's like'. It would be natural for the linguistically inclined philosopher to react to this situation by trying to advance investigations into the nature of phenomenal consciousness by determining what we mean by that expression: after all, if discourse about phenomenal consciousness accurately reflects the nature of its subject matter, that nature should be at least partly revealed in the meaning of the most central expressions in that discourse. A recent theory of the syntactic and semantic properties of 'there's something it's like', presented in service of gaining insight into the structure of consciousness itself, appears in Lormand 2004; the twin purposes of the present article are to evaluate Lormand's story, and thereby to bolster our understanding of the meaning of 'there's something it's like'.<sup>1</sup>

Lormand's analysis, as provided in section 2 of his essay, has a startling consequence: the *inner sense* theory of consciousness is analyti-

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1. Other attempts are: Lewis 1988, Byrne 2004, and Hellie 2004. I use '\*' to represent ungrammaticality.

Philosophical Review, Vol. 116, No. 3, 2007 DOI 10.1215/00318108-2007-005 © 2007 by Cornell University cally true!<sup>2</sup> According to the inner sense theory, for a mental event e to be conscious is for the subject in whose mental life e occurs to perceive it. The inner sense theory is widely disputed, so it would be a great surprise were Lormand's analysis correct.<sup>3</sup>

Lormand's analysis of (1)

(1) there is something e is like [Lormand's (1)],<sup>4</sup>

(where e is a mental event), begins with a case for its equivalence to (2):

(2) e is like something for its subject [Lormand's (4)].

I will grant this equivalence. Lormand argues—to my mind, convincingly<sup>5</sup>—that (2) has the structure of a clause (3) in the scope of an operator 'for *s*':

(3) *e* is like something.

I will grant this.

Lormand then argues for two central claims:

- I. 'for s' means 'in the presence or sight of s';
- II. 'e is like something' means 'e perceptually appears some way.'

If (I) and (II) are correct, (2) would mean the same as 'e perceptually appears some way in the presence or sight of its subject'. If so, (1) would carry a double commitment to the inner sense theory, one commitment stemming from the appearing e is doing, and one stemming from the perceptual reception of e to its subject. Plausibly, if this is right, the inner sense theory is analytic (whether the theory that would be analytic is a reductive inner sense theory, as Lormand wants to argue, is another matter entirely). Unfortunately, neither (I) or (II) is adequately supported. I attack (I) in section 1 and (II) in section 2; in section 3, I collect together the positive results from these discussions to provide some options for what (1) might really mean.

- 2. This is but one of several arguments Lormand provides for a distinctive and detailed development of the inner sense theory: for others, see Lormand 1994, 2006.
  - 3. Twenty-two of these objections are surveyed and responded to in Lormand n.d.
- 4. Throughout, I've renumbered Lormand's displayed sentences and altered some variables to reduce clutter slightly. I've also slightly altered the analysandum—Lormand's discussion is cast so as to concern the status as conscious of havings of mental properties, in general, by subjects of experience, rather than particular mental events. This focus seems less likely to raise troubling metaphysical questions.
  - 5. I discuss the case for this claim in section 3.

#### 1. Against (I)

Lormand presents the following case for (I). Among the many uses of 'for' that the *Oxford English Dictionary* (OED) detects is one that means "in the presence or sight of" (for, *prep.*, A.I.1.b); none of the other uses it detects are at all plausibly identified with the use of 'for' in (2), as uttered in a standard context in the philosophy of consciousness room.

Even if both claims were true, it would still take more work to extract a perceptual commitment from the disjunctive "in the presence or sight of," just as it would take more work to extract knowledge that Bill had bacon from the knowledge that Bill had bacon or ham: perhaps the use of (2) in the philosophy of consciousness merely requires that the experience be in some sense in the "presence" of the subject.

Setting this aside, the usage that Lormand suggests does not seem especially apposite. First, the use at A.I.1.b defined by "in the presence or sight of" is supported by only two citations: one from *Beowulf* and one from a homiletic text from 1175. Perhaps the OED missed a more recent citation of this usage, but more plausibly, 'for' no longer means "in the presence or sight of."

Second, the definition appears in the OED's hierarchy of uses of 'for' in position A.I.1.b., where the A uses are prepositions and the I uses are prepositions meaning 'before'. But 'for' as used in (2) does not mean 'before': 'e is like something before s' is not an adequate paraphrase of (2). It doesn't even make sense!

Relatedly, 'for' on this use seems to have been superseded by the contemporary preposition 'before': the I uses are marked as "obsolete," and the most recent citation for any of these uses is from 1504. So if we, as opposed to speakers of Old English, meant what (I) implies we mean, we would say 'e is like something before s'. But of course we don't.

Third, of the I uses, the 1 uses are marked as 'of place' (by contrast, the 2 uses are marked as 'of time', and the 3 uses as 'in preference to, above'). But, for what it's worth, my semantic intuitions indicate no implication of spatiality in (2) (or in (1), for that matter—or, for that matter, of time or order of preference).

Fourth, the more recent definition given in the New Shorter OED has eliminated reference to sight from this definition; perhaps this is an indication that the language experts at Oxford have overruled the original judgment about the meaning of the twelfth-century use, stripping it of its perceptual implications.

Finally, it is doubtful that none of the other discussed uses of 'for' is in any way appropriate to understanding (2). Consider A.IV.12.c "introducing the intended recipient, or the thing to which something is intended to belong, or in connection with which it is to be used." It is not implausible to suppose that (2) means 'e is like something, as its subject receives it', or 'there is something e is like which belongs distinctively to e's subject'. Or consider A.IX.26.a "as regards, with regard or respect to, concerning." It is quite plausible that (2) means 'e is like something as regards its subject'. This use may have an implication that the subject of e takes some perspective on e, or on e's being like something. But there is no implication that this perspective is in any way perceptual: perhaps e's subject merely judges e to be like something, or takes some attitude more primitive than judgment toward e's being like something.

The OED provides a definition of a contemporary use that comes close to what Lormand claims 'for' to mean, but it is not a definition of 'for'. According to the OED, some uses of 'to' are characterized as follows: "Used esp. after be, become, seem, appear, mean, to indicate the recipient of an impression, the holder of a view or opinion; to be (something) to, to be (something) in the eyes, view, apprehension, or opinion of [...]." Note here the inclusion of *opinion*, a clearly nonperceptual notion, and of *apprehension*, which seems to concern awareness or perspective while remaining highly nonspecific about the manner of awareness or perspective. Perhaps 'to' can be substituted for 'for' in (2) while preserving meaning ('e is like something to s'). If so, then there would be some lexicographic support for the view that means the same as 'e is like something from the perspective of s'. But this support would not extend to the more specific view that the perspective in question is perceptual.

#### 2. Against (II)

Recall (II): the claim that (3) ('e is like something') means 'e perceptually appears some way'; and accordingly, that its quantificational structure is therefore displayed by ' $\exists X(e$  perceptually appears X)', where X is a predicate variable; and, accordingly, 'perceptually appears' is a predicate functor, an expression mapping a predicate 'PRED' into a predicate 'perceptually appears PRED'. While 'perceptually appears' does not, of course, appear on the surface of (3), Lormand's view seems to be that there is a

<sup>6.</sup> This seems to be the interpretation Kriegel (2005) has in mind when he discusses a "for-me-ness" of consciousness.

predicate functor apparent on the surface of (3) with the same meaning as 'perceptually appears', namely, 'like'. In Lormand's view, 'like' in (3) is the suffix '-like', a predicate functor that, he argues, means 'perceptually appears'. (II), then, is the product of two claims:

- (4) the logical form of (3) is displayed (abstractly—that is, eliding such features as tense, aspect, and lexical meaning; henceforth, I'll leave this qualification tacit) by ' $\exists X[\Lambda(X)](e)$ ', where ' $\Lambda$ ' is the predicate functor allegedly contributed to logical form by 'like' (call this the *predicate functor view*); and
- (5) 'Λ' is the reflex of an expression meaning 'perceptually appears' (call this the *appearance view*).

After a sketch of what I take to be the true logical form of (3), I will examine the case Lormand makes for each of these claims in turn.

#### 2.1. The Propredicate View

I will sketch an abbreviated case for what I take to be the true logical form of (3), appealing to what I call the *propredicate* interpretation of 'like' (I defend the propredicate view against a larger set of competitors in Hellie 2004, 339–41, 352–58). On the propredicate view, ' $\exists X[\Lambda(X)](e)$ ' as a display of the logical form of (3) indicates the presence of structure that is not there, in its appeal to the predicate functor: better to display it as ' $\exists X(Xe)$ '.

Why believe the propredicate view? I begin with a review of an elementary application of quantification theory to the analysis of the logical forms of sentences of natural language. Consider the sentences (a) 'Cheney shot Whittington', (b) 'Cheney shot him', (c) 'Cheney shot someone' / 'there's someone Cheney shot', and (d) the "unembedded question" 'who did Cheney shoot?', the "embedded question" '(Whittington knows) who Cheney shot', and the "echo question" 'Cheney shot who?'

- (a) is a closed simple sentence, and it is natural to express its logical form as 'Scw', where 'S' is a binary predicate and 'c' and 'w' are individual constants.
- (b) is similar to (a) but for a substitution of the pronoun 'him' for the name 'Whittington'. How shall this be reflected in a representation of its logical form? Pronouns are devices of variable reference, occurrences of which do not carry their semantic values as intrinsic aspects of their meaning, but rather have them assigned by features of the context

in which they are produced. The same is more or less true of variables of artificial language, so it is natural to represent the logical form of (b) as 'Scx', where 'x' is an individual variable.

Both examples in (c) involve an existential quantification into the second argument position of 'shot', and its logical form is thus naturally represented as ' $\exists x(Scx)$ '; they differ only syntactically, in that in the second example the quantified noun phrase 'someone' has "raised," or (on the dynamic picture of transformational grammar) "vacated" the position it occupies in (c) and "moved" to the left.

Finally, for reasons that need not detain us here, a central treatment of the logical form of questions (see Stanley and Williamson 2001 for further discussion) represents the logical form of both the unembedded and embedded examples in (d) as 'Qx(Scx)', where 'Q', like ' $\exists$ ', is a variable binder (explaining the meaning of 'Q' any further would sidetrack the discussion). Here, unembedded (d) and (a) are related as question to grammatical answer. Of course the entire sentence (a) need not be pronounced to answer unembedded (d). Rather, only the word corresponding to the argument position in the logical form of (a) which corresponds in turn to the argument position in the logical form of (d) bound by 'Q'—namely, 'Whittington'—need be pronounced. By contrast, for any other word in the full answer (a), it would be ungrammatical to produce it alone in answer to (d), as in the following discourses: 'Who did Cheney shoot?' 'Whittington' / \*'Cheney' / \*'shot'. 'Did' functions in the unembedded variant as a sort of "dummy main verb," bearing the syntactic properties of tense and aspect and occupying a fairly early position in the sentence; by contrast, in the embedded version, the dummy main verb is not introduced. Note that unlike a quantified noun phrase, a question form like 'who' *must* be pronounced as raised: \*'Cheney shot who' is ungrammatical (on the intended reading: though note the grammaticality of the "echo question" 'Cheney shot who?').

Now consider the sentences (e) 'Cheney is secretive', (f) 'Cheney is thus/so', (g) 'Cheney is somehow/some way' / 'There's some way Cheney is', and (h) 'how/what way is Cheney?' / '(Whittington knows) how Cheney is' / 'Cheney is how?' The logical form of (e) is naturally represented as 'Sc'; since 'thus' and 'so' are propredicates, devices like pronouns in having no context-insensitive semantic value but that are assigned (relative to context) predicate semantic values, it is natural to represent the logical form of (f) as 'Xc', where 'X' is a unary predicate variable. The (g) examples seem to involve an existential quantification into the

predicate position, and their logical forms is thus naturally represented as ' $\exists X(Xe)$ '; the examples differ only syntactically, in that the second example is raised. And the logical form of the unembedded question in (h) is, accordingly, naturally represented as 'QX(Xe)'. Note once again the relation of unembedded (h) to (e) as question to answer. And note the grammaticality of answering unembedded (h) as 'secretive' but not as \*'Cheney' or \*'is'. And note once again the mandatory raising of the predicate question-form: \*'Cheney is how'. And note the need to leave the main verb ('is') at the end of the sentence in the embedded variant.

Now, on the propredicate view, in (3) 'like' is used as a device that *syntactically transforms a pronoun into a propredicate*. Expressed with a bit more nuance, the view is that this use of 'like' combines with the pronouns 'this' and 'that' to form propredicates 'like this' and 'like that'. Note that 'like this' and 'like that' can grammatically occupy largely the same positions occupied by ordinary predicates and propredicates: 'Cheney is secretive/shooting/a secretive man/in an undisclosed location/like this/like that/thus/so', but 'Cheney/\*secretive/\*shooting/a secretive man/\*in an undisclosed location/\*thus/\*so/\*like this/\*like that is secretive'. Accordingly, I call the compounds 'like this' and 'like that' 'like'-propredicates.

Syntactically, 'like'-propredicates behave mostly the same as other propredicates in their interaction with binders like quantifiers and question words: though there is an important difference.

First, consider their interaction with quantifiers. Compare (i) 'Cheney is like that'; (j) 'Cheney is like something' / 'there's something Cheney is like' to (f) 'Cheney is thus/so'; (g) 'Cheney is somehow' / 'there's some way Cheney is'. Intuitively, the claims are equivalent in meaning. But while the propredicate of (f) makes no appearance in the unraised version of (g), and the raised version of (g) contains no trace whatever of the propredicate of (f), the same is not true of examples (i) and (j): the propredicate 'like that' leaves 'like' as a residue in the predicate position of both the unraised and raised versions of (j). Note that the intended meaning cannot be expressed with 'Cheney is something' or 'there's something Cheney is'.

Next, consider the interaction of 'like'-propredicates with question forms. Consider the examples in (h): Question: 'How is Cheney?' Answer: \*'Cheney'/\*'is'/'secretive'/\*'secretive-like'/\*'like secretive'/ 'Cheney is secretive'; '(Whittington knows) how Cheney is'; echo question 'Cheney is how?' Now compare (k): Question: 'What is Cheney like?' Answer: \*'Cheney'/

\*'is'/'secretive'/\*'secretive-like'/\*'like secretive'/'Cheney is secretive'; '(Whittington knows) what Cheney is like'; echo question 'Cheney is like what?' Each of the examples in (k) seems equivalent in meaning or grammaticality status to the corresponding example in (h).

The isomorphism among the intuitive meaning properties, and the bulk of the syntactic properties, of the examples in (a), (b), (c), and (d); in (e), (f), (g), and (h); and in (e), (i), (j), and (k), then, strongly suggests an isomorphic treatment of their logical forms: namely, by assigning to (i), (j), and (k) logical forms represented by 'Xe', ' $\exists X(Xe)$ ', and 'QX(Xe)'. On this view, a 'like'-propredicate contributes nothing more to the logical form of a sentence it inhabits than does an ordinary propredicate like 'thus' or 'so': it contributes only the predicate variable 'X'.

There is, of course, an anomalous aspect of the syntactic behavior manifest in (i), (j), and (k): namely, that 'like this' is syntactically composite, despite its claimed semantic simplicity. This composite syntactic character is reflected in the fact that 'like' is extremely robust in its tendency to occupy predicate position. Unlike pronouns and ordinary propredicates (and the remainder of 'like'-propredicates), 'like' *really* does not want to "move"! If 'like this' is replaced by a quantifier, as in (j), 'like', unlike 'thus' or 'so', hangs around. If the quantifier is "raised," 'like' hangs around. If 'like this' is replaced by a question form, as in (k), 'like' hangs around in its original position under echo questions, embedded questions, and unembedded questions. 'Like' is a real syntactic stick-in-the-mud! I don't know how to explain this syntactic behavior, but the effect seems genuine. The propredicate view is thus forced to accept that 'like'-propredicates are syntactically complex but semantically simple. I'm not sure how much of a cost this is, though: syntax does weird things sometimes.

That gives an overview of the case for the propredicate interpretation of 'like' and some of the content of the interpretation. As should be clear at this point, the propredicate view predicts that (3) is just an existential quantification into the predicate position of 'e is like this'; accordingly, the logical form of (3) is displayed by ' $\exists X(Xe)$ ', contra (4); and (3) is synonymous with 'e is some way'.<sup>7</sup>

7. As an anonymous referee points out, it suffices for the truth of 'e is some way' that e exists: the referee worries that the claim is too weak to capture the meaning of (3). I suspect that the concern is that (3) should have some phenomenal import. Perhaps this indicates that there is some contextually supplied restriction on the quantifier: for instance, what is meant is that for some *phenomenal F*, e is F. But I am not sure that (3) has any phenomenal import. The sentence with phenomenal import is a consciousness-seminar use of (1), as expanded in (2); and this latter consists of an application of the

#### 2.2. Against the Predicate Functor View

Lormand's case for the predicate functor view is that it provides the "best way to make sense of" the "grammatical feature" of (3) that, in it, "something' is best specified by predicates, not terms." This claim summarizes the following discussion:

'something' clearly functions as a variable, a placeholder, but over what does it generalize? Not primarily "things" designated by noun phrases, but *features* specified by *predicative* phrases. If asked *what* it is like to wrestle with a riddle, the adjectives 'interesting' or 'fatiguing' are better answers than the nouns 'interest' or 'fatigue'. This use of 'like' . . . mirrors a more widespread use described as follows in the 1971 *Oxford English Dictionary* (OED).

Some phrasal uses of the adj[ective] ['like'] in this construction ['is like'] have a special idiomatic force. The question *What is he* (or *it*) *like*? means 'What sort of a man is he?', 'What sort of a thing is it?', the expected answer being a description, and not at all the mention of a resembling person or thing. (Like, *adj.*, A.1.b., L-283)

If we were to try to express [(3)] in something more like logical notation than grammatical English, we would have to write 'is like some F'—using a predicate variable 'F'—rather than 'is like some x'—using a term variable 'x.' (Lormand 2004, 308–9)

I find this passage to be agreeable—up to the boldfaced portion. 'What is it like?' does indeed mean 'what sort of thing is it?', in accord with the equivalence I have claimed to hold between (h) and (k). And we do indeed answer this question by giving a "description" of the thing or predicate the thing satisfies rather than a "mention of a resembling person or thing" or term denoting something the entity resembles: ordinar-

operator 'for e's subject' to (3): perhaps the operator does all the work of lending a phenomenal import.

I don't claim to have made a complete and exhaustive case for the propredicative view here: in particular, I haven't discussed views on which 'like' does contribute a predicate functor to logical form, but it is in some way a "trivial" operator, so that while 'e is like this' does not share a logical form with 'e is thus', they nevertheless share (context-relative) truth conditions—for the case against various trivial-operator views, see Hellie 2004. Still, note that *Lormand* cannot appeal to such a trivial-operator view since he takes 'A' to have a robust meaning, such that 'like blah' makes a very different contribution to truth conditions from 'blah'.

<sup>8.</sup> Lormand appeals to two other "grammatical features," which he labels '(b)' and '(c)', on behalf of the views adumbrated in the surrounding text; the latter is redundant to the one I discuss in the body text, and I discuss the former in the following section.

ily, to 'what is Cheney like?', the desired answer would be something like 'secretive', a predicate Cheney satisfies, rather than 'David Addington', which names a person by all reports resembling Cheney in being secretive: this much is manifest in the data in (k).

Still, it is not easy to see how to get from this observation to the boldfaced passage. After all, the isomorphism among the examples in (a), (b), (c), and (d); in (e), (f), (g), and (h); and in (e), (i), (j), and (k) is at least as well preserved by taking the logical form of (3) to be displayed by ' $\exists X(Xe)$ ', as per the propredicate view, than by ' $\exists X[\Lambda(X)]e$ ', as per the predicate functor view. So Lormand's case for the predicate functor view is at best *neutral* as between it and the propredicate view.

But worse, the case actually seems to favor the propredicate view. Consider this: on the predicate functor view, the examples in (e), (j), and (k) would correspond under the isomorphism I have laid out not to 'Cheney is secretive', 'Cheney is thus', and 'how/what way is Cheney?' but rather to 'Cheney is like secretive', 'Cheney is like thus', and 'how/what way is Cheney like?' (with logical forms displayed by ' $[\Lambda(S)]c$ ', ' $[\Lambda(X)]c$ ', and 'Q $X[\Lambda(X)]c$ '). Now, each of these is of somewhat dubious grammaticality; still, as we will see in the next section, these forms are indeed part of English, as are the forms 'Cheney is secretive-like', 'Cheney is thus-like', and—perhaps—'What-like way/how-like is Cheney?' though, unlike the examples in (i), (j), and (k), they are not in any way central to my idiolect, or to widespread usage as manifest in pop songs like "She Said, She Said" ("I know what it's like to be dead") and a pair of recent and very much worse songs by Everlast and Britney Spears, each titled "What It's Like." This variation in the degree to which these allegedly corresponding expressions are in widespread usage should come as a surprise to Lormand, given the apparent systematicity of all the constructions we have been discussing. But still, I think that the dubious grammaticality of these forms is not the best place to make the case against the predicate functor view.

Rather, the concern is that given the *lack* of parallelism between 'QX[ $\Lambda(X)$ ]c' and 'Sc', the predicate functor view predicts that it would *not* be appropriate to answer 'what is Cheney like?' by saying 'Cheney is secretive'. On the predicate functor view, the grammatical fully sentential answer to 'what is Cheney like?' *must* be 'Cheney is like secretive/secretive-like' (or, of course, 'Cheney is like PRED/PRED-like' for some other 'PRED'). And this does not square with my grammatical intuitions. Rather, in my view, the OED is entirely correct in its view that 'what is Cheney like?' is equivalent to 'what way ("what sort of a man") is Cheney?' And to

the extent that it is entirely permissible to answer the latter with 'Cheney is secretive' (as well as, perhaps, optional, to answer it with 'Cheney is like secretive/secretive-like'), the same holds of the former.<sup>9</sup>

A bit of added evidence for the propredicate view as against the predicate functor view is that the OED confirms my claims about the meaning of deictic uses of 'like'-propredicates: in the same paragraph as the one Lormand quotes concerning the question 'what is he like?' there follows shortly afterward this: "like that, used predicatively [ . . . ]: of the nature, character, or habit indicated," with a citation to the following discourse: "he refused to keep his royal promise; kings are like that." Treating unbound variables of natural language as acquiring semantic properties from context, the sentence 'Lear is like that', which on the propredicate view has the logical form 'X(Lear)', would predicate of Lear that he *has* some feature (nature, character) given by context (indicated). So the propredicate view's assignment of logical forms squares with the OED's view; contrastingly, the predicate functor view's assignment of  $[\Lambda(X)]$  (Lear)' does not: it predicts not that 'Lear is like that' predicates of Lear that he has the indicated feature, but that he has some feature related to the indicated feature by being the value of the function expressed by ' $\Lambda$ ' applied to it.<sup>10</sup>

Finally, recall what the OED says about the question 'what is it like?' (for instance, 'what is being a bat like?'):

Some phrasal uses of the adj[ective] ['like'] in this construction ['is like'] have a special idiomatic force. The question *What is he* (or *it*) *like*? means

9. It might be objected by a friend of the predicate functor view of 'like' that the reason it is acceptable to answer 'what is Cheney like?' with 'Cheney is secretive' is that 'Cheney is secretive' is in some sense *equivalent* to 'Cheney is like secretive': for instance, they are commonly known to have the same truth condition. After all, it is acceptable to answer 'what time tonight did Hesperus appear?' with 'Venus appeared at 7 p.m. tonight', when the latter is commonly known to have the same truth condition as 'Hesperus appeared at 7 p.m. tonight'.

Now, a proponent of this view would have to acknowledge that, *sometimes*, giving the Venus answer to the Hesperus question would be unacceptable (such as when it is not common knowledge that Hesperus is Venus); by contrast, 'Cheney is secretive' is *always* an acceptable answer to 'what is Cheney like?' So the proponent of this line would have to acknowledge that 'yada is like blah' is always known to have the same truth condition as 'yada is blah'. And this would seem to commit him or her to the trivial-operator view, discussed in note 7. As discussed in that note, I disagree with the trivial-operator view for reasons tangential to present concerns since *Lormand* cannot endorse the trivial-operator view.

10. At least not if the predicate functor is nontrivial: see note 7.

'What sort of a man is he?', 'What sort of a thing is it?', the expected answer being a description, and not at all the mention of a resembling person or thing. (Like, *adj.*, A.1.b., L-283)

Syntactically complex idioms like 'kick the bucket' and '(rain) cats and dogs' in general do not have meanings that are derived compositionally from the meanings of their parts together with the syntactic relationships in which those parts stand to one another. Taking the OED as authoritative in its view that the discussed uses of 'like' have a "special idiomatic force," we should be strongly suspicious of any attempt to reconstruct the meaning of the related predicate 'like this' and the derived use involving quantifying into 'this' by appeal to considerations about independent meanings of certain uses of 'like' and expressions that function as variables and their binders, together with how those expressions are composed into phrases. We should no more be able to extract compositionally the meaning of *this* idiom than we would with 'kick the bucket' or '(rain) cats and dogs'. The propredicate view respects this idiomatic character; the predicate functor view does not, taking the structures to have compositional meanings.

### 2.3. Against the Appearance View

I think that in light of the preceding objections, the predicate functor view concerning the contribution to the logical form of (3) made by 'like', as described in (4), cannot ultimately be sustained. Still, it is worthwhile examining the remainder of the case for (II), namely the case for the appearance view, or (5). The progression of argument for this view is mixed together with the case for the propredicate view, as well as other remarks the relevance of which is not easy to grasp, so I am not sure I have got the argument quite right. But my best attempt to cast the discussion into a valid argument is the following:

- (6) The predicate functor 'like' when applied to 'PRED' forms the predicate 'is like PRED'.
- (7) 'Is like PRED' means the same as 'is PRED-like'.
- (8) Every predicate is an adjective. 11
- (9) 'Is ADJ-like' means the same as 'appears ADJ'.

<sup>11.</sup> I doubt that Lormand himself believes this implausible claim, but I can't see how to reconstruct the argument without attributing a tacit appeal to it. To see that this is not too wide of the mark, consider the following passages (Lormand 2004, 308–11):

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From these premises, it follows that if a sentence has the logical form displayed by ' $(\exists X)[\Lambda(X)](e)$ ', it means 'e appears some way': as per (II). Still, although we may grant (6), and (7) is at least well attested by the OED, neither of (8) or (9) is at all plausible.

First, let us examine the attestation for (7). According to the OED, concerning the suffix '-like',

In strictness, the words containing this suffix are compounds of LIKE *a.* and *adv.*, in the senses in which these words govern a dative or are followed by an adj. (see LIKE a. 1 b, LIKE *adv.* 1, 3).

In other words, '-like' can combine with noun phrases in the dative case (such as 'him'), or with adjectives. 'Him-like' would then mean the same as 'like him'; 'loud-like' would then mean the same as 'like loud'. The entries for LIKE a. 1 are defined as meaning "having the same characteristics or qualities as some other person or thing; of approximately identical shape, size, colour, character, etc., with something else; similar; resembling; analogous"; the b uses are those in "simple dative constructions": namely, these uses involve application of 'like' to a noun phrase in the dative case to form a predicate, such as 'is like him'. (The "special idiomatic use" of 'like' is discussed under this entry.) The central entry for LIKE adv. 1 is defined as meaning "In or after the manner of; in the same manner or to the same extent as; as in the case of"; and the entry for LIKE adv. 3 is defined as "Followed by an adj. or adjectival phrase: in the manner of one who (or that which is) [ADJ]."

Not primarily "things" designated by noun phrases, but *features* specified by *predicative* phrases. If asked *what* it is like to wrestle with a riddle, the adjectives 'interesting' or 'fatiguing' are better answers than the nouns 'interest' or 'fatigue'. . . . It is no surprise that they would be rendered obsolete, given the dominant competing use of 'is like' for 'is similar to', which demands completion by terms (for instance, nouns) rather than predicates (for instance, adjectives). Yet while 'is like [ADJ]' has lost its head-on competition with 'is like [NOUN]', it lives on in the simple variant 'is [ADJ]-like.' . . .

the O.E.D. identifies the general meaning of 'is [ADJ]-like' as '[has] the appearance of being [ADJ]'  $\dots$ 

To counter the application of the O.E.D.'s definition to (6), what is required is some better way of understanding '[ADJ]-like.' . . .

A similarity construal of 'like' does not make good sense for '[ADJ]-like,' since c's having M may *appear* (to have the property) F but is hardly similar to (the property) F.

In these passages, one senses a slide from regarding adjectives as being *exemplary* of predicates to being *exhaustive* of predicates.

Of course, there is no special implication of appearance coming from any of these definitions of nonsuffixal 'like'; together with (7), this provides a strong prima facie case against any implication of appearance from any of the definitions of suffixal '-like', contra (9). But perhaps Lormand's case for (9) is sufficiently strong as to overwhelm this prima facie case: we shall see.

Next, concerning (8). Not every predicate is an adjective. <sup>12</sup> Lormand is correct when he states in the above-quoted passage that such abstract noun phrases as 'interest' or 'fatigue' cannot be used to answer the question: after all, abstract noun phrases are not predicates. Moreover, plenty of other noun phrases are also not predicates: 'Chomsky is every linguist', 'Chomsky is any linguist', and 'Chomsky is some linguist' are ungrammatical (though 'Chomsky is *some linguist*!' is grammatical). Still, some noun phrases can be used in surface form predicate position. Although definite and indefinite noun phrases have uses as surface form arguments, they can also be used as surface form predicates, as in 'Cheney is the shooter' and 'Chomsky is a linguist'. And one can answer a question about what an experience was like for one using a definite or indefinite noun phrase, as in the following discourses: 'what was solving that riddle like for you?'; 'a difficult challenge' / 'the best experience of my life!'

Now, concerning (9). Under '-like', the OED gives four definitions, labeled 1a, 1b, 2a, and 2b: the 1 entries concern cases in which the suffix is appended to such "substantives" as nouns and proper names, while the 2 entries concern cases in which it is appended to adjectives; under these, the a subentries concern cases in which an adjective is formed, the b subentries concern cases in which an adverb is formed; the b subentries can thus be ignored.

Definition 1a reads as follows: "Forming adjs. with the general sense 'similar to—', 'characteristic of—', befitting—'." The definition applies straightforwardly to 'Bill-like': it means something like 'similar to Bill'. It does not however apply straightforwardly to 'cat-like', since 'similar to cat', 'characteristic of cat', and 'befitting cat' are ungrammatical. Still, 'similar to a cat', 'characteristic of a cat', and 'befitting a cat' are grammatical, and these definitions strike one as highly plausible equivalents of 'cat-like' (compare: 'the cat's grace was cat-like' / 'the cat's grace was characteristic of, or befitting, a cat').

Definition 2a reads as follows: "In Scotch, the suffix is added freely to almost any descriptive adj., esp. those relating to mental qualities,

<sup>12.</sup> The material in this paragraph owes much to Fara 2001.

conditions of temper, or the like'; the general sense of the compounds is 'having the appearance of being—'. In Eng. use the formation is not common, and the sense is usually 'resembling, or characteristic of, one who is—', as in *genteel-like*, *human-like*."

Now, since not every predicate is an adjective, sometimes 'PRED-like' could be of form 'NOUN-like', and thereby mean 'similar to/characteristic of/befitting a NOUN'. In such a case, 'e is like something' would have logical form displayed by ' $(\exists X)(e$  is similar to/characteristic of/befitting an X)', and would therefore have no perceptual implication. So in at least some cases, (3) has no perceptual implication.

A stronger claim can be made. It does not seem to me that Lormand has established the existence of *any* cases in the contemporary consciousness room in which (3) has a perceptual implication. 'ADJ-like' only means 'has the appearance of being ADJ' in Scotch; in English, its (uncommon) use has no perceptual implication, meaning 'resembling, or characteristic of, one who (or something which) is ADJ'. In such a case, (3) would have logical form displayed (reflecting lexical meaning) by ' $(\exists X)(e$  resembles, or is characteristic of, something which is X)', and would therefore also have no perceptual implication. Presumably the use of 'like' in contemporary English is much more relevant to what is meant by uses of (3) in articles and discussions by Anglophone participants in the philosophy of consciousness than is its use in contemporary Scotch.

I conclude that Lormand's discussion does not support (9), or consequently the appearance view (5), or consequently (II).

If Lormand's discussion manages to convey the appearance of such support, it does so by creating a misleading impression as to the actual content of the OED. I quote the entirety of the passage in which Lormand (2004, 310) makes his case for (9):

Although with the exception of 'is like mad' and 'is like new' we do not often say 'is like F'—not even 'is like sane' or 'is like old'—such phrases were once more common in English. It is no surprise that they would be rendered obsolete, given the dominant competing use of 'is like' for 'is similar to', which demands completion by terms (for instance, nouns) rather than predicates (for instance, adjectives). Yet while 'is like [adjective]' has lost its head-on competition with 'is like [noun]', it lives on in the simple variant 'is [adjective]-like'. The OED describes modern Scotch usage in ways that seem tantalizingly relevant to the present quest:

In Sc[otch] the suffix ['-like'] is added freely to almost any descriptive adj[ective], esp[ecially] those relating to mental qualities, conditions of temper, or the like; the general sense of the compounds is 'having the appearance of being—'. (-like, *suffix*, 2.a., L-287)

Modern (nineteenth- and twentieth-century) examples given include 'greedy-like', 'grim-like smile', 'square-like room', 'herbaceous-like shrub', 'sublime-like beauty', 'gluey-like material', and so on. This usage is not only a survival of earlier *Scotch* usage, but of a much more extended usage in English: in fact, the ubiquitous use of the suffix '-ly' for adverbs derives from the Middle English suffixes '-lik' and '-like', as in modern English 'greedily' from Middle English 'gredilike'. Modern English also has a small number of survivors such as 'genteel-like' and 'humanlike'. Frequency and breadth of use aside, the important point is that these constructions are all easy for the ordinary speaker to understand. I believe that the best way to make sense of [certain] grammatical features [...] is to interpret [(M)] as [(N)]:

- [(M)] c's having M is like something for c.
- [(N)] For some F, c's having M is F-like for c.

As quoted above, the OED identifies the general meaning of 'is [adjective]-like' as '[has] the appearance of being [adjective]' (-like, *suffix*, 2.a., L-287). (All bracketed interpolations, aside from "[certain]" and those following it, are Lormand's.)

This passage conveys three mistaken impressions about the content of the OED, two of which do not much influence the substance of the argument, but the third of which is central to the case for (9).

First, it suggests that the OED's citations of "'greedy-like,' 'grim-like smile,' 'square-like room,' 'herbaceous-like shrub,' 'sublime-like beauty,' 'gluey-like material,' and so on" are taken from entries in Scotch. But the series of citations for 2a does not discriminate between whether a citation is from English or Scotch.

Second, Lormand (2004, 310) claims that the alleged appearance usage of '-like' is "not only a survival of earlier *Scotch* usage, but of a much more extended usage in English: in fact, the ubiquitous use of the suffix '-ly' for adverbs derives from the Middle English suffixes '-lik' and '-like', as in modern English 'greedily' from Middle English 'greedilke'." The OED does discuss the connection of '-like' to the modern '-ly' and the Middle English '-lik' and '-like' at the top of the entry. But what it says is "The compounds so formed [that is, by appending '-like'] not unfrequently resemble in sense the derivatives formed with -lik(e), ME. dial. form of

-LY, but the two formations are entirely distinct: thus ME. *gredilike* adv. (= greedily) is not the same word as the mod. Sc. *greedy-like*." So the OED in fact expresses the denial of what it is represented as saying.

Neither of these misimpressions much influences the substance of the argument. But third, the passage suggests that the OED provides the Scotch usage 'having the appearance of being ADJ' as the *only* definition for modern uses of 'ADJ-like' under definition 2a of '-like': the "general meaning" of 'is ADJ-like' is claimed to be "[has] the appearance of being [adjective]" (ibid.); the same suggestion is conveyed also by the use of the definite article in this slightly later passage: "to counter the application of the OED's definition [of '-like'—note the definite article] to [(N)], [and the consequent assignment to it of the meaning "For some F, c's having M has the appearance of being F for c,"] what is required is some better way of understanding '[adjective]-like.' I think it is difficult to motivate a plausible rival interpretation" (ibid., 310-11). The definition of the uncommon English usage as "resembling, or characteristic of, one who is ADJ"—which provides a plausible rival interpretation—goes unmentioned. (Interestingly, the definition of the uncommon English usage rather than the list of attestations—is the source of Lormand's examples of "a small number of survivors" from "Modern English," 'genteellike' and 'humanlike'.)

#### 2.4. Against Lormand's Other Cases for (II)

At two locations in Lormand's article, cases are made on behalf of (II) that are more-or-less independent of the content of the OED; I will now briefly discuss each.

The first case is made in the following passage:

To counter the application of the OED's definition to [(N)], what is required is some better way of understanding '[ADJ]-like'. I think it is difficult to motivate a plausible rival interpretation. Being [ADJ]-like presumably does not amount simply to being [ADJ]; if it did, '-like' would be idle and [(2)] would be trivially true ('for some[thing ADJ]'). Nor does it seem to require being [ADJ]; if it did, '-like' would be entirely misleading. [(A)] Certainly there are uses of '-like' that are to be explained not in terms of "appearances" but in terms of "similarity" more generally construed—for instance, for imperceptible entities such as "electron-like particles" and "Platonic-Form-like universals"—but in these cases '-like' attaches to nouns rather than to adjectives. [(B)] A similarity construal of '-like' does not make good sense for '[adjective]-like,' since . . . [e] may appear . . . [ADJ] but is hardly similar to . . . [ADJ]. (ibid.)

The target here is the view (reported by the OED) that in contemporary English, 'ADJ-like' means 'resembling, or characteristic of, one who/something which is ADJ'. The passage contains two arguments that might be intended to cut against this thesis, which I have labeled (A) and (B).

Briskly with (B): the proposal under consideration is not that 'e is ADJ-like' means 'e resembles ADJ', but rather means 'e resembles something ADJ'. So the discussion is not to the point.

At slightly greater length with (A): Lormand's presentation of *some* cases in which 'NOUN-like' applies to unobservable entities goes no way toward establishing the point he needs, which is that there are *no* cases in which 'ADJ-like' means 'resembling something ADJ'. Here's such a case: 'perfect' as it applies to numbers is an adjective. We could, I suppose, understand the notion of a perfect-like number to apply to numbers similar to perfect numbers in certain respects (perhaps in being such that the ratio of the number to the sum of its proper divisors is low). I'll grant that 'perfect-like' isn't such great English; still, it seems Lormand had better admit that this construction is as "easy for the ordinary speaker to understand" as any of the other 'ADJ-like' constructions he relies upon.

The second location in which Lormand makes a case for (II) that is less dependent on the content of the OED is in his section 3, in which he provides a direct attack on what he calls a "literal" understanding of 'like': namely, as meaning 'resembles', as contrasted with being understood in a roundabout way via the equivalence with '-like' and its alleged perceptual reading.

In the abstract, the objection is this: suppose that (3) means 'e resembles something'. That's vacuous, of course, and is unable to be true of e exactly if it is a conscious experience unless a respect of similarity is somehow tacitly specified which is necessary and sufficient for consciousness. Lormand argues against a number of candidates for this necessity and sufficiency. Since there is no way to make sense of the phenomenal import of (3) on the resemblance understanding, Lormand takes it that only the roundabout meaning could be intended.

There are two difficulties with the objection. First, note that the objection culminates (at Lormand 2004, 321) by forcing the friend of the "literal" interpretation to admit that the only nonperceptual respect of resemblance that would do the trick is *phenomenal* resemblance. But, Lormand complains, this would presuppose a prior understanding of consciousness, and so would be inadequate as material in a *definition* in the sense of an analytic reduction of consciousness. Now, this might be a

problem for *Lormand's* project, which is to reductively analyze consciousness. But the objection won't move anyone who denies that consciousness can be reductively analyzed: I daresay, most philosophers of mind.

But a more fundamental concern is that the objection presupposes the phenomenal import of the wrong expression. It is not (3), but (2) that is supposed to convey that e has phenomenal character. (2) is composed by applying the operator 'for s' to (3). Lormand provides no reason to reject the view that it is 'for s', rather than (3), which has phenomenal import. Indeed, by Lormand's standards, 'for s' connotes the subject's perceptual awareness of the experience, and therefore does have phenomenal import.

#### 3. What Might (1) Mean?

I conclude with some speculative remarks. Although I have been largely critical of Lormand's argumentation on behalf of (I) and (II) here, I am in agreement with one of Lormand's broader points, which I indeed take to be of considerable significance. This is that (1) as standardly asserted in the consciousness room is equivalent to (3) in the scope of an operator 'for s'.

I will briefly canvass reasons on behalf of this point. Here's Lormand's case:

The 'for c' plays multiple roles simultaneously. The two most obvious roles depend on whether 'for c' forms a unit with the phrase following it or the phrase preceding it. We can read ['There is something it is like for c to have M'] both as 'it is like something for-c-to-have-M' and as 'it is-like-something-for-c to have M'. In the former case, 'for c' is redundant given that c is M's bearer; on this reading it can be omitted without noticeable semantic loss. . . . But it also plays the more substantive latter role; on this reading, it can be *stressed* without noticeable semantic gain—as in Nagel's emphatic "something it is like *for* the organism" in the quote above. (The stress encourages the second reading, but this reading is available without the stress.) The best way to make these two roles explicit is to duplicate 'for c,' construing ['There is something it is like for c to have M'] as equivalent to ['There is something it is like for c, for c to have M']. (Lormand 2004, 307–8)

Byrne (2004, section 4.1) objects to the understanding of 'for c' as a syntactic constituent, hence as an operator:

Consider a specific example:

- (\*) There is something it's like for Mr. N. N. to see a cucumber.
- (\*) is equivalent to 'For Mr. N. N. to see a cucumber is like something' which in turn is equivalent to 'For a cucumber to be seen by Mr. N. N. is like something'. This illustrates the fact that in (\*) 'for' has no particular attachment to 'Mr. N. N.'; it is instead the complementizer of the infinitival clause 'Mr. N. N. to see a cucumber'. (Unlike, for example, 'for' in 'The police are looking for Mr. N. N.') Hence there is no syntactic reason to think that (\*) will have some exciting entailment solely about Mr. N. N.—say, that he is aware of himself.

Byrne argues that 'for' *can* be used as the complementizer of the infinitival phrase, with 'Mr. N. N.' serving as the subject of that clause; 'for Mr. N. N.' is not a syntactic constituent. That's compatible with there being *another* way in which 'for' can be used. Why suppose there is such another way?

Arguments: first, consider Lormand's observation that 'for *c*' can be "duplicated." In the "duplicated" sentence, this complementizer—subject use of 'for'—'Mr. N. N.' is present, but so is another use. The most plausible hypothesis is that in its second occurrence, this string is a constituent, namely the prepositional phrase 'for Mr. N. N.'

Second, consider that 'there's something it's like for Bill for John to eat a cucumber'. That can make sense (suppose John chews really loudly and vibrates Bill's office through the wall). But clearly 'Bill' is not being used as the subject of 'to eat a cucumber'. It's not *Bill* that's eating! Once again, 'Bill' is most plausibly the complement of the prepositional phrase 'for Bill'.

Third, note that 'to see a cucumber is like something for Mr. N. N.' is equivalent to one reading of (\*). Here 'for' cannot be serving as the complementizer of the infinitival clause: complementizers always appear to the left of the phrases they head.

Fourth, note that (\*\*) 'Mr. N. N.'s seeing a cucumber was like something for Mr. N. N.', in which the complementized infinitival is replaced by a gerundive, is equivalent to one reading of (\*). In (\*\*), there are two occurrences of 'Mr. N. N.', one serving as the subject of the gerundive clause, another quite clearly doing something else—most plausibly serving as the complement of a prepositional phrase headed by 'for'.

Finally, note with Lormand that 'for Mr. N. N.' can be stressed in (\*). That this string can be stressed strongly suggests it can be a constituent (contrast: \*'John believes *that Bill* is a hooligan').

I think that the case for the propredicative interpretation of (3) is very strong; so that if we knew what the operator 'for s' meant, we would

entirely understand (1). Putting the propredicative interpretation of (3) together with three potential interpretations found in the OED for 'for *s*' yields three potential interpretations of (1):

- (10) a. *e* is some way as regards its subject.
  - b. *e* is some way and *e*'s being that way is in the possession of its subject.
  - c. e is some way in the awareness of (or from the perspective of) its subject/its subject takes e to be some way.

Of these, (10a) is the least semantically rich: if it is the correct equivalent, analysis of the semantic properties of (2) has very little to teach us about the nature of consciousness; the phenomenal import of (2) would result entirely from such pragmatic factors as which manners of regarding the subject are conversationally salient.<sup>13</sup> (10b) supports a sort of "ownership" theory of consciousness (compare Frege 1918/1956). (10c) supports a higher-order awareness theory compatible with the awareness in question being nonperceptual, such as on a higher-order thought theory (Rosenthal 2005) or an acquaintance theory (Hellie in press).

A still further possibility is that 'for' has a sort of meaning dictionaries are not set up to tell us about. Semanticists recognize a notion of "semantic role" (Payne 1997), applying to highly general relations semantic values may bear to one another that are a bit more rich than those captured in the logician's notion of "argument structure." For instance, the semantic role of "agent" is filled by the entity that instigates some activity; that of "patient" is filled by the entity that suffers the activity. For example, the sentence 'Brutus stabbed Caesar' concerns a certain stabbing, of which Brutus's semantic role is that of agent, while Caesar's is that of patient (note the relative richness of instigating versus suffering by comparison with saturating the first versus the second argument place of a polyadic property). A further such semantic role is "experiencer," which is filled by the entity that undergoes a certain phenomenally conscious experience of a certain occurrence (Longacre 1983). It may be that in 'e is *F* for *s*', the semantic function of 'for' is to indicate that the semantic value of its complement ('s') is the experiencer of some state, namely *e*'s being F (Glanzberg 2006). Of course, what it is to be the experiencer of an occurrence deserves further investigation.

<sup>13.</sup> One might wonder how (10a) could manage to communicate anything about consciousness. Hellie 2004, 341–45 provides a sort of "Gricean" explanation of this; I now doubt the adequacy of this explanation.

#### BENJ HELLIE

It would be nice if we were able to read the metaphysical structure of consciousness off of the semantic properties of discourse about consciousness. Optimists about this prospect should—if my argumentation is on track—be focusing their attention on narrowing down the scope of possibilities just canvassed.

#### References

- Beaney, Michael, ed. 1997. The Frege Reader. London: Blackwell.
- Byrne, Alex. 2004. "What Phenomenal Consciousness Is Like." In *Higher-Order Theories of Consciousness*, ed. Rocco Gennaro, 203–25. Amsterdam: John Benjamins.
- Fara, Delia Graff. 2001. "Descriptions as Predicates." *Philosophical Studies* 102:1–42.
- Frege, Gottlob. 1956 [1918]. "The Thought." *Mind* 65:289–311. Reprinted in Beaney 1997.
- Glanzberg, Michael. 2006. "Context, Content, and Relativism." Unpublished manuscript, University of California–Davis, September 1, 209.85.165.104/search?q=cache:NiFINftfa8gJ:philosophy.ucdavis.edu/glanzberg/relativism.pdf+Context,+Content,+and+Relativism&hl=en&ct=clnk&cd=1&gl=us.
- Hellie, Benj. 2004. "Inexpressible Truths and the Allure of the Knowledge Argument." In *There's Something About Mary*, ed. Peter Ludlow, Yujin Nagasawa, and Daniel Stoljar, 333–64. Cambridge, MA: MIT Press.
- Kriegel, Uriah. 2005. "Naturalizing Subjective Character." *Philosophy and Phenomenological Research* 71:23–57.
- Lewis, David. 1988. "What Experience Teaches." *Proceedings of the Russellian Society* 13:29–57. Reprinted in Lewis 1999.
- ——. 1999. *Papers in Metaphysics and Epistemology*. Cambridge: Cambridge University Press.
- Longacre, Robert E. 1983. The Grammar of Discourse. New York: Plenum.
- Lormand, Eric. 1994. "Qualia! Now Showing at a Theater Near You." In *Philosophical Topics*. Vol. 22, *The Philosophy of Daniel Dennett*, ed. Christopher Hill, 127–56. Fayetteville: University of Arkansas Press.
- ———. 2004. "The Explanatory Stopgap." *Philosophical Review* 113:303–57.
- . 2006. "Phenomenal Impressions." In *Perceptual Experience*, ed. Tamar Szabó Gendler and John Hawthorne, 316–53. Oxford: Oxford University Press.
- . n.d. "Inner Sense Until Proven Guilty." Unpublished manuscript, University of Michigan.

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- Payne, Thomas E. 1997. Describing Morphosyntax: A Guide for Field Linguists. Cambridge: Cambridge University Press.
- Rosenthal, David M. 2005. *Consciousness and Mind*. Oxford: Oxford University Press.
- Stanley, Jason C., and Timothy Williamson. 2001. "Knowing How." *Journal of Philosophy* 98:411–44.