

## On Location

Stephen Neale\*

### 1. UNDERARTICULATION

In *Smith v. United States* (1993), the United States Supreme Court handed down a decision that resolved a conflict among the Circuit Courts over the interpretation of the common word ‘use’ as it occurs in the phrase ‘use a firearm’. This was for purposes of the provisions of a statute setting penalties for offences where a defendant “during and in relation to” any crime of violence or drug trafficking “uses or carries a firearm.”<sup>1</sup> The statute, 18 U.S.C. § 924(c)(1), mandates a five-year consecutive sentence, increased to thirty years if the weapon is ‘equipped with a firearm silencer or firearm muffler.’

Petitioner John Angus Smith had attempted to trade an unloaded automatic weapon, a MAC-10, together with a silencer, for two ounces of cocaine, and had been found guilty of drug trafficking. At no time did Smith brandish the weapon or threaten with it. The Supreme Court ruled that the exchange or barter of a gun for illegal drugs constitutes “use” of a firearm, thus agreeing with the opinion of the Court of Appeals for the Eleventh Circuit that the plain language of the statute “imposes no requirement that the firearm be used as a weapon” and disagreeing with the Court of Appeals for the Ninth Circuit that trading a firearm for drugs could not itself constitute “use” of that firearm during and in relation to a crime.<sup>2</sup> According to the Supreme Court, *any* use of the weapon to facilitate in any way the commission of the offence was sufficient. In consequence, Smith had certainly “used” a firearm in a drug trafficking crime by attempting to trade it, and it made no difference that he had not “used” it in the way firearms are intended or designed to be used.

Interestingly, given my concerns here, the Court noted that the phrase ‘as a weapon’ appeared nowhere in the statute and wrote in its opinion, “Had Congress intended the narrow

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\* It is an honour to contribute a piece to this volume celebrating the work of my dissertation adviser John Perry. Most of the paper was written at the University of Iceland in 2002/03 while I held a fellowship from the John Simon Guggenheim Foundation. The first half was revised considerably in 2004 in the light of a seminar John Hawthorne and I taught on contextualism at Rutgers University. Discussions in Reykjavík with Donald Davidson, Ólafur Páll Jónsson, Mikael Karlsson, Jón Ólafsson, Ken Safir, and Höskuldur Þráinsson were extremely helpful. So were discussions with Kent Bach, Emma Borg, and especially Robyn Carston and Ken Taylor in October 2002 at a conference in Genoa, where a slice of the material was presented. So too were discussions with Eliza Block, Deniz Dagci, Kevan Edwards, John Hawthorne, Damon Horowitz, Angel Pinillos, Adam Sennet, Ted Sider, Robert Stainton, in the Autumn of 2004. John MacFarlane, Michael O'Rourke, Adam Sennet, Jason Stanley provided me with some useful late comments that helped me fix a few problematic paragraphs. Several works published in 2002 or later—Breheny (2002), Carston (2002), MacFarlane (2003, forthcoming), Stanley (2002a, 2002b)—are discussed only in footnotes added or expanded in 2004/2005. Reorganization and rewriting—but I think no change in my position—would have been necessary to address in the text points raised in or by these interesting works, so footnotes must suffice. I gratefully acknowledge the generous support of Rutgers University, the University of Iceland, and the John Simon Guggenheim Foundation.

construction petitioner urges, it could have so indicated. It did not, and we decline to introduce that additional requirement on our own.” The Court continued,

It is one thing to say the ordinary meaning of ‘using a firearm’ *includes* using a firearm as a weapon, since it is the intended purpose of a firearm and the example of use that most immediately comes to mind. But it is quite another to conclude that, as a result, the phrase also *excludes* any other use. Certainly that conclusion does not follow from the phrase ‘uses . . . a firearm’ itself. . . . That one example of ‘use’ is the first to come to mind when the phrase ‘uses . . . a firearm’ is uttered does not preclude us from recognizing that there are other uses that qualify as well. In this case, it is both reasonable and normal to say that petitioner ‘used’ his MAC-10 in his drug trafficking offense by trading it for cocaine . . . the only question in this case is whether the phrase ‘uses . . . a firearm’ in § 924(c)(1) is most reasonably read as *excluding* the use of a firearm in a gun-for-drugs trade. The fact that the phrase clearly includes using a firearm to shoot someone, as the dissent contends, does not answer it. . . . We are not persuaded that our construction of the phrase ‘uses . . . a firearm’ will produce anomalous applications . . . § 924(c)(1) requires not only that the defendant ‘use’ the firearm but also that he use it ‘during and in relation to’ the drug trafficking crime. As result, the defendant who ‘uses’ a firearm to scratch his head . . . or for some other innocuous purpose, would avoid punishment for that offense altogether: Although scratching one’s head with a gun might constitute ‘use’, that action cannot support punishment under § 924(c)(1) unless it facilitates or furthers the crime; that the firearm served to relieve an itch is not enough. . . . Under the dissent’s approach, . . . even the criminal who pistol-whips his victim has not used a firearm within the meaning of § 924(c)(1), for firearms are intended to be fired or brandished, not used as bludgeons.

The central issue here is one which falls squarely within the purview of the philosophy of language. It concerns whether the expression ‘uses a firearm’ is to be understood, in the context of this particular statute (and presumably elsewhere) as if it were tantamount to ‘uses a firearm as a weapon’. The Court ruled that it should not. The issue may be set out in at least three ways: (i) In terms of what many philosophers discussing attributive uses of incomplete definite descriptions (‘the murderer’, ‘the mayor’, and so on) have called *ellipsis* (not to be confused with a *syntactic* notion in generative grammar often called ‘ellipsis’, ‘deletion’ or ‘elision’).<sup>3</sup> (ii) In terms of what Dan Sperber and Deirdre Wilson have called the *underdetermination* of propositions by the meanings of the linguistic forms we use to express them (even relative to assignments of referents to singular terms and the specification of any anaphoric links).<sup>4</sup> Or (iii) in terms of what John Perry has called *unarticulated constituents* of the propositions we express using sentences of natural language.<sup>5</sup> We are in the same territory with the concepts mentioned in (i)-(iii), although (a) Perry’s conception of unarticulated constituents appears to involve subtleties relevant to the study of thought that elude simple talk of ellipsis and underdetermination; (b) talk of underdetermination appears to involve subtleties and allow for interpretive possibilities not obviously captured by talk of ellipsis and unarticulated constituents. I do not, however, want to get too embroiled in these matters here. If we want a label that is neutral, we could do worse than talk about *underarticulation*, but we shall have to be careful at times:

*The Underarticulation Thesis (UT):* What a speaker says (the proposition he expresses) by uttering an unambiguous, declarative sentence  $\phi$  on given occasion is underarticulated by  $\phi$ ’s syntax, the meanings of the morphemes in  $\phi$ , the prosodic features of  $\phi$ , the references to any referring expressions in  $\phi$  (including those of an indexical nature), and the specifications of all anaphoric links.

Several things about this general characterization should be mentioned. (1) I assume here and throughout the standard view that propositions are true or false without relativization to times (or anything else).<sup>6</sup> And in order to engage with Perry and other authors, I shall assume that propositions have objects, properties, and complexes built out of such things as constituents. Thus the proposition that Scalia judges has Scalia himself and the property of judging as constituents. (2) I talk of ‘the proposition *a speaker* expresses’. This is because I follow Austin, Grice and Strawson in construing meaning, saying, asking, implying, referring, predicating, asserting, making statements, and expressing propositions as things *people* do on given occasions (usually *with* words), as intentional actions they perform.<sup>7</sup> (3) For simplicity, I shall start out using ‘indexical’ in its broad sense above to include any expression that may be used to refer to different things on different occasions of utterance, for example the words ‘I’, ‘you’, ‘he’, ‘this’, ‘that’, ‘here’, ‘there’, ‘now’, and ‘then.’<sup>8</sup> (4) By ‘anaphoric links’, I mean (roughly) interpretive dependencies holding between expressions, including those that involve the binding of one expression (often a pronoun) by another.<sup>9</sup> (5) The word ‘declarative’ appears in this formulation for expository convenience only: I want to focus on *saying* (rather than *asking*, for example), on *statements* made (rather than *questions* asked), and on *propositions* expressed (rather than *issues* queried).<sup>10</sup> (6) Why ‘unambiguous’? Among the things a hearer or reader needs to do in order to identify what *S* is saying on a given occasion, is identify which *words* *S* is using. ‘Bank’ is the superficial form of either a single, ambiguous word of English or else two distinct unambiguous words, and I do not want one’s position on this matter to impinge upon the Underarticulation Thesis.<sup>11</sup>

The sort of thoroughly intentional, speaker-based usage of ‘say’, ‘express’, ‘refer’ and so on that I advocate is to be distinguished from (typically less intentional) talk of, for example, *sentences* expressing propositions relative to “contexts” and of *words* (or *phrases*) referring relative to these same entities, talk I find problematic because of the way it leads people to treat the wrong notions as basic within a theory of interpretation.<sup>12</sup> Perry talks of *uses*—particular dated uses or tokenings—of sentences expressing propositions (and of *uses* of words referring). I must admit, I don’t care for this way of talking any more than I care for talk of sentences relative to contexts expressing propositions or talk of utterances of sentences doing so (or talk of words relative to contexts referring, or talk of utterances of words doing so). However, since there is always understood to be a *user* in one of Perry’s particular dated uses of a word or sentence, later I shall take the liberty of construing his talk of a particular use of a sentence *X* expressing the proposition that *p* (or saying that *p*) as replaceable by my talk of the user (e.g. the speaker) expressing the proposition that *p* (or saying that *p*) by using (e.g. uttering) *X* on a given occasion.

Similarly, I shall take Perry’s talk of a particular use of a word (or phrase) *X* referring to someone or something as replaceable by my talk of the user (e.g. the speaker) referring to someone or something with *X* on that occasion of use.<sup>13</sup> I maintain that referring is an intentional act, something *speakers* do, that talk of an *expression* itself referring, and even talk of an expression referring relative to an utterance, a speech act, a ‘context’, or a ‘tokening’, is, at best, derivative. So when I use the word ‘refer’, I intend its subject to be an expression we use to refer to a speaker.

With Perry, I wish to allow for the (actualized) possibility of a user referring to some object without using any particular word or phrase to refer it. Perry’s best known example involves an unarticulated *location*. Consider an utterance made by me right now of the following sentence:

(1) it's raining.

I could be expressing the proposition that it's raining in Reykjavík. Yet there is no part of sentence (1) that I would be using to refer to Reykjavík. Nonetheless, raining, as Perry stresses, is a binary relation between a time and a place. (Similarly, being a citizen, foreigner, resident, local, native, national, or patriot is a binary relation between a person and a place.) It doesn't just rain. (One cannot just be a citizen.) It rains at a time, in a place. (One is a citizen of a place.) This is why I can use (1) right now to express a true proposition about Reykjavík, or a false one about Paris; or use it tomorrow to express a false one about Reykjavík, or a true one about Paris.

Now suppose I had used (2) or (3) instead of (1):

(2) it's raining in Reykjavík

(3) it's raining here.

It is natural to say that I would be using 'in Reykjavík' (or at least the 'Reykjavík' part) to refer to Reykjavík by uttering (2), and that I would be using the word 'here' to do so by uttering (3). But neither 'here' nor 'in Reykjavík' occurs in (1). Now I want to say, with Perry, that I referred to Reykjavík when I uttered (1). But what was I using to refer to Reykjavík?

Ordinary language suggests it would be quite correct to say I would be referring to Reykjavík. If we had a crossed telephone line and a third party said in response to my utterance of (1), 'No it didn't, I was here in London all day; there was no rain', I suppose I might reply by saying, 'I was referring to Reykjavík, not London'. We need a distinction here between referring to *X* with an expression (typically a singular term) and merely referring to *X* in uttering an expression (typically a sentence). I referred to Reykjavík *in uttering* (1), but there is no constituent of (1) with which I would have referred to Reykjavík.<sup>14</sup> Or so I maintain.

Suppose I utter (4):

(4) It's raining here in Reykjavík.

Would I be referring to Reykjavík *twice*, once with 'here' and once again with 'in Reykjavík', and perhaps even a third time with the compound (if such it is) 'here in Reykjavík'? First impressions suggest I would be saying only *one* thing about Reykjavík, that it's raining here. But if I am really *referring* to it twice *with words* shouldn't we say that I referred to it twice *in uttering* (4) or at least explore the idea that I am *predicating* two things of it in uttering (4), (i) that it's raining here, and (ii) that I am there (i.e. here). If I were in *Genoa* today when I uttered (4), wouldn't I be saying something true (that it's raining in Reykjavík) and also something false (that I am in Reykjavík)?<sup>15</sup> Compare an utterance of (5):

(5) It's raining in Reykjavík today; it often rains here.

Surely I refer to Reykjavík twice when I utter (5), once with 'Reykjavík' and once again with 'here'. And in this case it would be perverse to deny that I am saying two distinct things about Reykjavík (that it's raining there (i.e. here), and that it often rains there (i.e. here)). We should have no qualms, then, about saying that I referred to Reykjavík twice *in uttering* (5). But if that is right, what precisely are the qualms about saying I referred to it twice *in uttering* (4)?

Similarly, I can use (2) now to express a true proposition about me and Great Britain, or a false one about me and Iceland, and in principle I could use it at some point in the future to express a true proposition about me and Iceland, or about me and the USA:

(6) I am a citizen.

To say that one cannot be a citizen without being a citizen of some particular place is *not* to say that we cannot express propositions involving this binary relation without having *particular* places in mind. We certainly can, because we can make *general* statements using quantifiers. Consider (7):

(7) Smith is a citizen of somewhere or other: he has a passport.

This fact will be important later.

Before getting to the details of Perry's discussion of (1) and the responses it has elicited, I want to touch on a more general issue in an informal way. Consider particular dated utterances of the parts of (8)-(10) below that are not in acute angled brackets:

(8) the mayor <of Reykjavík> is underpaid

(9) most people <in Reykjavík> think the mayor <of Reykjavík> is underpaid

(10) John is ready <to leave <Reykjavík>>.

The fuller expressions could easily be used to make more *explicit* the proposition a speaker wishes to express (which is not to say the speaker would always be doing a better job). Examples involving things other than locations are not hard to find:

(11) I haven't drunk any wine <tonight>

(12) the Russian <judge> voted for the Russian <skater>

(13) <in Egil's Saga> Thorolfur is killed in England

(14) the <former> hostages were greeted at the White House

(15) <the woman on> table six wants her steak rare

(16) every man who owns sheep vaccinates the sheep <he owns> every year.

To many who accept the Underarticulation Thesis, much contemporary work in the philosophy of language seems to be in a grip of a grey and cramped picture of so-called compositional semantics, a picture too beholden to the study of formal languages and not sufficiently sensitive to certain facts about the use of natural language and our ordinary talk about what we are saying and what we are referring to (perhaps only implicitly) on given occasions. Problems discussed under the rubric of compositional semantics—construed as the study of the composition of the *propositional content* of a sentence (relative to a context) from the contents of its parts (relative to that context) and their syntactic arrangement—are products of specious questions in the philosophy of language, questions that have genuine and important counterparts in the philosophy of *mind*, mostly about inference and the way we identify the thoughts people attempt to express using sentences of natural language.<sup>16</sup> Our interpretive abilities are *so good* that we can reasonably expect our addressees (and often those who overhear) to identify the thoughts we seek to express, even when the linguistic meanings of the expressions we use fall short of delivering the precise concepts involved in the thought. Often a speaker will use a simple predicate, even if a richer one might be used, one that could, in principle, leave the hearer with less inferential work to do. (The use of the richer predicate is not guaranteed to speed up communication—it could slow it down).

A general theory of interpretation must answer the following question: how is it that we manage to identify the proposition a speaker seeks to express—let alone the ones he seeks merely to imply—by uttering a sentence *X* on a given occasion, given the precious little

information we obtain by virtue of our knowledge of the meanings of the words in *X* and our knowledge of *X*'s syntactic structure?<sup>17</sup>

Most of the people I know who publicly accept the Underarticulation Thesis—*linguistic pragmatists*, to give them a name—do not do so *gleefully*. They did not wake up one Monday morning and decide it would be fun to abandon traditional compositional semantics, to claim that the propositions we express by uttering sentences are underdetermined by the meanings of unambiguous linguistic forms we use, even relative to “reference assignments” and “anaphoric assignments”. It would be more accurate to say they threw in the towel. They are, for the most part, people who have great respect for syntactic theory—many of them have come from linguistics, after all—and for the idea that syntactic facts go well beyond what is revealed by superficial parsing. Many of them have done a good deal of traditional compositional semantics and tried to explain all manner of “contextual effects” the good old-fashioned ways, by judicious appeals to indexicality and hidden syntax, or by bringing down the Gricean guillotine. Moreover, they have worried themselves sick about the relation between thought and language. In the face of what seemed like an invincible alliance of empirical and conceptual pressures, reluctantly, and with a distinct lack of glee, they concluded that something had to give. With the best will in the world towards syntactic theory, often embracing a distinction between a sentence's superficial form and its underlying form (and, with that, often enough the idea of aphonic items in syntax) they have seen no reasonable alternative to surrendering to the Underarticulation Thesis. Content compositionality has ceded to mere content *systematicity*, and the relation between natural language sentences and sentences of Mentalese or the language of thought (for those who are happy with the idea of such a system of mental representation) now looks quite different, only the latter being truly compositional and rich enough to have truth-evaluable content,<sup>18</sup> various old puzzles about conjunctions, conditionals, descriptions, variable-binding, and deletion look less threatening; the possibility of explaining indexicality in terms of *perspective* has returned as unfettered appeals to indexicals and hidden syntax have faded. It is only at *this point* that excitement begins. It is doubly a mistake to identify it with the excitement of just tearing down an old order or advancing controversial theses. First, it is excitement at the prospect of *progress* of a sort, or the prospect of escaping from some narrow tunnel. Second, the Underarticulation Thesis itself smacks of an old-order, an order that winds through Wittgenstein, Moore, Austin, Strawson, Grice, and Searle, in taking the use of language, and the way *speakers* say things and refer to things as the primary object of investigation.

Many people who are involved in the project of constructing semantic theories reject the Underarticulation Thesis out of hand, but not, I think, for particularly good empirical reasons. Several related factors appear to be implicated in this, and I want to say something about two of them, interconnected holdovers from generative semantics: free-wheeling appeals to hidden syntax and to indexicality.

It is all too easy to claim that some seemingly troublesome expression is “indexical” (in a broad sense) and, unfortunately, appeals to “indexicality” have become semantic panaceas in various branches of philosophy. There are those in epistemology, for instance, who claim the verb ‘know’ is indexical, the strength of the justification required for felicitous usage altering with context.<sup>19</sup> And there are those in the philosophy of language, for instance, who claim there are unheard indexical expressions in the syntax of all sorts of natural language sentences, expressions that can refer to more or less anything the theorist chooses, without being in the least bit perspectival or descriptive.<sup>20</sup> Traditionally, perspective has been a distinguishing

feature of indexical (deictic, egocentric) expressions, and for good reason: indexicality needs to be *explained*.<sup>21</sup> As Perry (1986) points out, a non-indexical expression is one whose meaning specifies a contribution to propositional content that is constant across different uses; an indexical is one whose meaning specifies only *a relation to the user* that is constant across different uses, different entities capable of serving as the specified relatum and hence as contributions to propositional content, on different occasions of use. The indexicality of an expression is thus *explained* in terms of a perspective it signals. (The perspective may be higher-order.) Much contemporary discussion of indexical expressions, by contrast, appears oblivious to this, being utterly unconstrained and grounded in nothing whatsoever except the desire to obliterate some problem or paradox of interpretation.<sup>22</sup> The result, as we shall see, is interpretive vacuity and syntactic dogma, neither of which has much empirical value.

I mentioned a Gricean guillotine a moment ago, and I had in mind, of course, the reduction or relegation of parts of what a speaker means on a given occasion to things he or she *implied* rather than said, the phenomena in question best explained in terms of Grice's (1961, 1989) manoeuvres in connection with uses of, for example, 'and', 'or', 'the', 'seem' and 'try'. I find it very odd that some linguists and philosophers claim Grice actually *rejects* the Underarticulation Thesis, that it conflicts with what he says about his pet notion of *what is said*. Certainly Grice did not see underarticulation as a phenomenon as broad as Perry, Searle, Sperber and Wilson, Carston, Récanati, or I see it; but it does not follow that he *rejected* the thesis. It would be an error to claim he is rejecting it in the following oft-quoted passage, which concerns a single example:

In the sense in which I am using the word *say*, I intend what someone has said to be closely related to the conventional meaning of the words (the sentence) he has uttered. Suppose someone to have uttered the sentence *He is in the grip of a vice*. Given a knowledge of the English language, but no knowledge of the circumstances of the utterance, one would know something about what the speaker had said, on the assumption that he was speaking standard English, and speaking literally. . . . But for a full identification of what the speaker had said, one would need to know (a) the identity of [the person] *x* [the speaker is referring to with 'he'], (b) the time of utterance, and (c) the meaning, on the particular occasion of utterance, of the phrase *in the grip of a voice*. (1989: 25).

As a matter of historical fact, (a) Grice saw the Underarticulation Thesis as a necessary component of any viable response to Strawson's (1950) Argument from Incompleteness against Russell's Theory of Descriptions, just as Sellars (1954) did;<sup>23</sup> (b) he never intended to be seen as denying the Underarticulation Thesis and was confident nothing in his "paltry corpus" conflicted with it; and (c) he thought the work of Austin, Searle, and Sperber and Wilson showed just how pervasive underarticulation was, even if he did think *some* data were better explained in terms of implicature. Of course, Sperber and Wilson (and those they have influenced) go much further than Grice, making it clear (i) that many cherished "relegations to conversational implicature" inspired by Grice—indeed some of Grice's own—had to be radically rethought and reclassified as parts of what is said, and (ii) that the underdetermination of what is said by linguistic meaning and reference assignment is a wholesale and pervasive feature of the use of natural language.

Although underarticulation is an old idea, as far as I can ascertain, in more technical work in the philosophy of language it was not discussed in earnest until after the quest had begun to produce semantic theories capable of complementing the syntactic theories produced by Chomskyan linguists. It may well have been Sperber and Wilson who first stated the thesis outright and in terms relevant to the contemporary study of the semantics of natural language

and the study of what is now often called Gricean pragmatics. What is interesting and novel about the Underarticulation Thesis in the hands of people like Grice, Perry, Récanati, and Sperber and Wilson, is the belief that holding it does not require throwing out the baby with the bathwater as Austin, Strawson, Sellars did. The novelty lies in the realisation that there is no inconsistency in combining the Underarticulation Thesis with the thesis that the syntax and semantics of natural language can be tackled by drawing upon many of the great technical insights in linguistics and the philosophy of language made by Chomsky, Davidson, Evans, Harman, Lewis, Kamp, Kaplan, Kripke, Montague, Partee, Perry, Stalnaker, and others in the 1960s and 1970s. The general idea of providing syntactic and semantic *theories* is not itself under attack. As Crimmins and Perry (1989) so rightly stress, one can give up compositionality without giving up *systematicity*.

The Justices on the U.S. Supreme Court might profit from a good dose of pragmatist philosophy of language and reflection on the Underarticulation Thesis. And Perry might be the perfect person to get them started. Once he has explained to the Court what the issues boil down to for uses of (1)-(12), he could get them started on the unarticulated constituent Justice O'Connor tries to trample to death in the proposition expressed in stating § 924(c)(1), already clear from reflection on utterances of (13):

(17) Smith used a gun.

It can't just rain, Perry might say; raining has to take place *somewhere, somewhen*. Similarly, you can't just *use* something; and you can't just use that something to do *something*, or just use it as *something*; you have to use it to do *something in particular*, or use as it as *something in particular*. The proposition we express by stating a regulation governing the use of firearms contains an unarticulated constituent just as much as the proposition expressed by an utterance of

(18) Through the inspired use of his new nine iron, Moravcsik triumphed over Hampshire on the 18th.

It makes all the difference, Perry might say, whether Moravcsik holed out with an extraordinary nine iron shot, smashed his nine iron shot straight into Hampshire, or whacked Hampshire on the shin with the aforementioned implement during a heated debate in the heavy rough, forcing Hampshire to retire and concede the match. Some particular use, or particular range of uses, is understood when the verb 'use' or the noun 'use' or the adjective 'useful' is *used* (even in utterances of 'this has many uses' or 'you can use this to do all sorts of things'). That, I imagine, is how Perry might be inclined to reason, and I for one would be inclined to go along with him, for reasons I shall spell out.

## 2. PERRY

Perry was a constant source of inspiration to me at Stanford, not only as a brilliant philosopher but also as a model dissertation director who somehow knew when to be hands-on and when to be hands-off—infallibly gauging my mood or commitment to any particular thesis—a phenomenally creative teacher and witty interlocutor from whom I have never stopped learning. I first met Perry in January 1984, in Jon Barwise's office. (I had left the PhD program in linguistics at MIT in mid-year to go to Stanford because of all the excitement surrounding the recently founded Center for the Study of Language Information.) We chatted about Barwise and Perry's book *Situations and Attitudes*, which had just appeared, about



context and implicature, and about the semantics-pragmatics distinction. One reason I felt at home so quickly was that Stanford seemed to be awash in sympathy for the Underarticulation Thesis, which had been tenderly drummed into me by Deirdre Wilson when I was an undergraduate. Barwise and Perry appeared to be convinced there was no hope of constructing a viable theory of interpretation without taking into account entities not served up directly by individual words or phrases (although there were heated debates at the time about when such entities were constituents of the proposition expressed, or situation described, and when they merely placed constraints on those propositions). Some of the Stanford linguists seemed to feel the same way, particularly Geoffrey Nunberg and Stanley Peters. Discussions with Paul Grice in Berkeley revealed that he was resigned to the Underarticulation Thesis, the case having been made convincingly, he thought, by the perfectly felicitous use of incomplete descriptions which he had discussed in a 1970 manuscript called "Lectures on Logic and Reality".<sup>24</sup> All right-thinking people, it seemed to me in 1984, probably accepted the thesis although many may not have articulated it to themselves clearly. (How wrong I was!)

The more I talked to Perry and Barwise, to Grice, and to Christopher Peacocke (a fellow that year at the Center for Advanced Studies in the Behavioral Sciences) the more I got drawn into philosophy, and the more my enrolment in Stanford's doctoral program in linguistics looked like a flag of convenience. It was Peacocke who suggested I move over to philosophy full-time and write a dissertation with Perry. There was a problem: although I'd attended a few philosophy lectures as an undergraduate, I'd never actually taken a philosophy course, written a philosophy paper, or taken any sort of philosophy examination. To my surprise, Perry and Barwise didn't seem to mind: they encouraged me to attend few seminars and see how things worked out. John Dupré, John Etchemendy, Dagfinn Føllesdal, and Pat Suppes all drew me further into philosophy over the next year; so did my golfing partners, Julius Moravcsik and Stuart Hampshire; and so did a remarkable new intake of philosophy graduate students, including Mark Crimmins, David Magnus, and Leora Weizman. They absorbed me as one of their own, and in September 1985 I became a backdated member of their class, a beneficiary of Stanford's creative approach to problem-solving.

Once I'd completed the coursework for the Ph.D. in philosophy, I began to work closely with Perry on my dissertation, which metamorphosed from something on situations and events, to something on event descriptions, to something on descriptions themselves. We met as regularly as possible on Friday afternoons in Perry's office in the quad, where conversation took place in ordinary English and, often enough, in a cloud of pipe smoke, a sanctuary from the rigors of CSLI, where ZF, AFA, GPSG, HPSG, LF, LFG, DRS, DRT and the like were taking their toll on my adviser. In the peace of the quad we argued about sentences and utterances, facts and situations, indexicals and demonstratives, acquaintance and description, and, if Perry had not overdosed on CSLI that week, an occasional quantifier or donkey pronoun. I think the topic we found most vexing was incomplete descriptions. Barwise and Perry (1983) had pretty much sided with Kaplan (1978) and Wettstein (1981) in holding that Donnellan's (1966) distinction between attributive and referential uses of descriptions reflected a distinction between the expression of a general proposition and the expression of a singular proposition, and was therefore of semantic significance and not 'merely' of relevance to a theory of speaker's meaning. But I was siding with Grice (1969), Kripke (1977), and Davies (1981) in holding that the phenomena usually taken to demonstrate the alleged semantic significance of the distinction could be explained at least as well by invoking Grice's distinction between what a speaker *says* and what he *means*.<sup>25</sup> This made for fabulously

productive arguments about partiality, persistence, quantifier domains, ellipsis, resource situations, multiple propositions, and so on, and Perry ended up supervising a dissertation one of whose principal theses he rejected, or at least still questioned.

What Perry had to say about (1),

(1) it's raining.

sounded incontrovertible at the time and seemingly in harmony with what some philosophers had said about incomplete descriptions. Among the examples I discussed in my dissertation was one due to Evans (1982):

(2) they ought to impeach the mayor.

Suppose Perry is driving through a city he has never driven through before, Reykjavik for example, and is horrified at the condition of the roads. He might utter (2) to express the proposition that the mayor *of Reykjavik* (or of *this city*) ought to be impeached. On my account, Reykjavik itself is an unarticulated constituent of the proposition Perry expressed, but the name 'Reykjavik' is not a component of the sentence he uttered.<sup>26</sup> Another convincing example, it would seem, of the failure of isomorphism of form and content, a breakdown of the one-to-one mapping between the meaningful constituents of a sentence and the constituents of the proposition it is used to express on a particular occasion.

### 3. PERRY'S UNARTICULATED LOCATIONS

The basic idea behind talk of unarticulated constituents is easy to grasp *if* one can put down any syntactic or semantic axe one has to grind and restrict attention to the relation between the words we utter and the constituents of the propositions we express in so-doing. However, some of Perry's discussions concern thought as much as language, and this means certain interpretive complexities arise. I want to start by summarizing what I take to be Perry's basic points about unarticulated constituents in words that are as neutral as possible on matters of syntax and thought. I shall then turn to Perry's own words and finally to the way of talking I myself favour.

Consider the following sentences:

it's raining / it's snowing / it's hailing  
it's foggy / it's cloudy / it's windy  
it's hot / it's humid / it's dull / it's overcast  
it's dark already / it's an hour before sunset  
it's 52 degrees / it's 6 Beaufort  
it's even windier than yesterday  
it's unusually warm for April / April has been unusually warm.

If I use any of these sentences right now to say something true or false, I make an 'implicit' or 'tacit' reference to a place or location (not necessarily my current location—we might be talking about somewhere else). It can't just be raining: raining is a binary relation between a place and a time: it rains *somewhere* and *somewhen*. (Which is not to say it could not be raining everywhere on Earth at the same time. Perhaps there are *physical* reasons why this could not happen, but this is no part of the meaning of the verb 'rain'.) Similarly, it can't just

be cloudy, overcast, an hour before sunset, or 6 Beaufort: these are all binary relations between time and places.

The binary nature of the relations expressed by utterances of sentences such as those above would appear to have important consequences for a theory of interpretation. Suppose I use (1) to say something about the current weather here in Reykjavík:

(1) it's raining.

In classical parlance, I say (or state) that it's raining *in Reykjavík*, I express the proposition (or make the statement) that it's raining *in Reykjavík*. The proposition that it's raining in Reykjavík is a proposition that *involves* Reykjavík, a *Reykjavík-involving* or *Reykjavík-dependent* proposition, despite the fact that there is no particular word or phrase in (1) that I am using to refer to (talk about) Reykjavík. Of course I could have used (2) instead to express the same proposition:

(2) it's raining here

Then I would have been using the indexical 'here' to refer to Reykjavík, so the story goes, but there was nothing wrong with my use of (1) to say that it's raining in Reykjavík.

Why insist that the proposition I expressed by uttering (1) is Reykjavík-involving? Because the truth or falsity of my remark, i.e. the truth or falsity of the proposition I express on this particular occasion, depends upon whether or not it is raining *in Reykjavík* (and not, for example, on whether or not it is raining *in Genoa* or raining *somewhere or other on Earth*). Of course, I could use (1) to express the proposition that it's raining in Genoa. In certain contrived circumstances, *perhaps* I could use it to express the proposition that it's raining somewhere on Earth; certainly I could also use any of the following to do that:

- (2') it's raining somewhere
- (2'') it's raining somewhere or other
- (2''') it's raining somewhere or other on Earth.<sup>27</sup>

So where do *unarticulated constituents* come into the picture, and what are they? Mark Crimmins answers these questions about as concisely as they can be answered:

In a semantics that takes propositions to be structures containing objects and properties, an unarticulated constituent is simply a propositional constituent that is not explicitly mentioned—it is not the content of any expression in the sentence (1992: 16).

And assuming such a 'semantics', Reykjavík, the place I made 'implicit' or 'tacit' reference to by uttering (1), is an unarticulated constituent of the proposition I expressed.<sup>28</sup>

(i) Perry's label is excellent. To anyone exposed to some phonetics, the verb 'articulate' and its progeny will immediately conjure up thoughts about the mouth, the alveolar ridge, liquids, and vowel quadrilaterals, and spark memories of the threefold division in phonetics between the acoustic, the auditory, and the *articulatory*, the subject matter of articulatory phonetics being *the ways in which meaningful sounds are produced by the speech organs*.<sup>29</sup> Amongst the various uses of 'articulated', good dictionaries specify two that are interestingly related through the concept of something like *segmentation* or *distinctness*: (1) "attached by a joint; connected by joints; having segments united by joints", and (2) "uttered as articulate sound, distinctly spoken" (*Oxford English Dictionary*). This is perhaps clearer with the adjective 'articulate': (1) "Jointed; united by a joint; composed by sections . . . distinctly jointed; having the parts distinctly recognizable" and (2) "Of sound: with clearly distinguishable parts, each having meaning. Of speech, expression, etc.: fluent and clear. Of a person: able to express

himself or herself fluently and clearly” (*OED*).<sup>30</sup> Although I have not consulted him on this matter, I suspect Perry chose ‘unarticulated’ to connote the idea of a constituent of a proposition corresponding to nothing that was *articulated* in the sense of ‘spoken’ or ‘pronounced’. Of course, this connotation does not mean he cannot employ the underlying idea (whatever that may be) *more widely*—for example in the realm of *thought*—for labels are just labels, and connotations are just connotations. There is always a risk in introducing a label for something, especially when one is in the early stages of describing a phenomenon or fleshing out an idea; but connotative labels are often helpful in those early stages, despite the damage they may do later, and we owe it to ourselves as interpreters of philosophical prose to exercise charity when we witness the genesis of philosophical ideas or labels, to put ourselves in the position of the creator, who is trying to get across (or just formulate to his own satisfaction) ideas that may be more general than those which finally emerge from the long labours of armies of critics descending upon the terrain.

(ii) *Being an unarticulated constituent of a proposition p* is an intrinsically binary relation, rather like being a foreigner.  $\alpha$  cannot just be a foreigner:  $\alpha$  is a foreigner *relative to a place*. Similarly,  $\alpha$  cannot just be an unarticulated constituent of a proposition  $\langle \dots\alpha \dots \rangle$ :  $\alpha$  is an unarticulated constituent of  $\langle \dots\alpha \dots \rangle$  *relative to some representational entity X* (e.g. a sentence), more accurately, relative to some particular *tokening* or *instance X'* of *X* (e.g. a use, utterance, occasioning or what-have-you of a sentence). Take the proposition that it’s raining in Reykjavík (now). Is Reykjavík an unarticulated constituent of that proposition or not? Wrong question. Relative to a use by me (now) of (1), by which I express the proposition that it’s raining in Reykjavík, it *is*:

(1) it’s raining.

But relative to a use by me (now) of (2) or (3) by which I expresses the same proposition it is *not*:

(2) it’s raining here

(3) it’s raining in Reykjavík.

Nor is Reykjavík an unarticulated constituent of the proposition expressed relative to my use (now) of (4) to express the proposition that it’s raining in Akureyri:

(4) it’s raining there.

But perhaps it *is* relative to my use of (5) to say that Akureyri gets less rain than Reykjavík,

(5) Akureyri gets less rain.<sup>31</sup>

Then again, it is *not* relative to my use of (5) to express the proposition that Akureyri gets less rain than London, or relative to my use of (6) to say that  $3^2 + 4^2 = 5^2$ :

(6)  $3^2 + 4^2 = 5^2$ .

We have in play three entities that can be construed as having *parts*, so let us forestall confusion by adopting certain conventions. Let us use ‘portion’ for a part of a *tokening* of a representation (e.g. a part of a particular dated use of the sentence (3) such as the sub-tokenings of ‘Reykjavík’ and ‘in Reykjavík’). Let us use ‘component’ for a part of *the thing tokened* (e.g. a part of (3) such as ‘Reykjavík’ and ‘in Reykjavík’). And let us use ‘constituent’ for a part of the thing expressed by the tokening (e.g. a part of the proposition expressed by a tokening of (3) such as Reykjavík itself).

The general concept of an unarticulated constituent makes sense only when we have *two* distinct entities that are meant to be standing in an asymmetric representational relation to one another, a *representing* entity  $X$  and a (partially) *represented* entity  $\langle \dots \rangle$  which  $X$  is taken to (partially) represent. We might now say the following on Perry's behalf:

A particular constituent  $\alpha$  of a proposition  $\langle \dots \alpha \dots \rangle$  is unarticulated relative to a tokening  $X''$  of  $X$  if, and only if,

- (a)  $X''$  represents (e.g. expresses, stands for, designates)  $\langle \dots \alpha \dots \rangle$ ; and
- (b) among the portions of  $X''$  that correspond to (and represent) the constituents of  $\langle \dots \alpha \dots \rangle$ , there is no portion that corresponds to  $\alpha$ .<sup>32</sup>

(iii) According to the very general picture of language that Perry (1986: 207-8) assumes: (1) a use of a sentence stands for (or expresses) a proposition; (2) the meaning of a sentence  $X$  is systematically related to the meanings of  $X$ 's components and their mode of composition; (3) the meanings of the components of  $X$  can be explained in terms of the relations between uses of these components and the things those uses stand for; so (4) the meaning of  $X$  is systematically related to the relations between uses of its components and the things those uses stand for; (5) the thing that a particular use  $C''$  of a component  $C$  of  $X$  stands for is a constituent of the proposition expressed by the particular use  $X''$  of  $X$  of which  $C''$  is a portion; (6) the meaning of  $X$  can be explained in terms of a relation between uses of  $X$  and propositions expressed by these uses. So where does talk of an unarticulated constituent  $\alpha$  of the proposition  $\langle \dots \alpha \dots \rangle$  expressed by a use  $X''$  come from in this picture if the use of no portion of  $X''$  stands for  $\alpha$ ? Answer: from  $X''$  *as a whole*.  $X''$  is *about*  $\alpha$  (and any articulated constituents of  $\langle \dots \alpha \dots \rangle$  that portions of  $X''$  stand for) even though no portion of  $X''$  stands for  $\alpha$ . Thus a particular use of (1) can be as much *about* Reykjavik as a particular use of (3).

(iv) There are just *two* ways in which an *articulated* constituent may get into the proposition expressed by an utterance of some sentence  $X$ . It is given either *directly* or *relationally* by the meaning of some component of  $X$ . More specifically, the meaning of a component of  $X$  is either of such a nature that it supplies the same *propositional constituent* on any occasion of use, or else of such a nature that it identifies the same *relation to the speaker* on any occasion of use, a relation that permits different propositional constituents bearing the relation in question to the speaker on different occasions of use. An expression that contributes in this relational manner is an *indexical*.

(v) As far as the propositions expressed by utterances of sentences are concerned, unarticulated constituents seem straightforward: a tokening  $X''$  of  $X$  is just a particular dated *use* of  $X$ , in Perry's sense. When it comes to *thoughts*, matters are somewhat trickier. Suppose, as Jerry Fodor and others have maintained, there is a *language of thought*, a modality-neutral system of mental representation. In principle, if  $X''$  is a token representation of this internal language (*Mentalese*, as it is often called), and  $\langle \dots \rangle$  is its propositional content, then it would seem that  $\langle \dots \rangle$  may contain what we might call an *unprojected* constituent  $\alpha$ , a constituent that is not projected from any particular portion of  $X''$ .<sup>33</sup>

(vi) No interesting thesis about *the syntax of natural language* is implied by the mere postulation of unarticulated constituents. (And no interesting thesis about the syntax of *Mentalese* is implied by the postulation of unprojected constituents.) But some philosophers are predisposed to see syntactic theses in the most unlikely places, so let me say a few words about this matter. For many linguists and philosophers of language, a particular theoretical stance on syntactic structure and on the identity conditions for sentences, dominates

investigations of language and mind. I confess to being one of these people myself: I take the Chomskyan line that a sentence is best construed as a pair  $\langle \pi, \lambda \rangle$  of representations, where  $\pi$  is a PF (or ‘Phonetic Form’) to be read by the sound system, and  $\lambda$  an LF (or ‘Logical Form’) to be read by the intentional system, where  $\lambda$  incorporates “whatever features of sentence structure (1) enter into the semantic interpretation of sentences and (2) are strictly determined by properties of sentence grammar” (Chomsky, 1976: 305).

On this approach, the LF of an English sentence is not just some semi-formal, semi-English representation of “semantic structure” or “truth-conditional content.” It is meant to be the actual syntactic structure of the sentence, generated by a syntax for the language, a structure that it is the task of empirical linguistics to reveal. Although many linguists and philosophers of language take more or less this line, many others do *not*, having more conservative views on just how removed representations of syntactic structure can be from the “ordinary” representations of speech we find in our traditional orthography.<sup>34</sup> Now one thing is quite certain: *Perry was not assuming any particular syntactic theory when he first talked about unarticulated constituents.* He was trying to present in as straightforward a manner as possible, facts about what people are saying when they use simple weather sentences such as the one we “ordinarily” represent as (1), which we “ordinarily” say contains three words, ‘it’, ‘is’, and ‘raining’. Of course, there is already a modicum of theory in our “ordinary” orthographic segmentation and classification of parts of speech. But we have to start *somewhere*; and Perry takes it for granted that the philosophers he is addressing—his original paper on this topic was for the Aristotelian Society—will assume the same starting point and be thinking about the issues without having any particular syntactic axe to grind. In short: talk of unarticulated constituents is not supposed to be beholden to any particular theory of what a sentence is: it concerns the relation between the propositions we express by using what are pre-theoretically taken to be sentences of English. And so it involves no commitment to the view (or to the denial of the view) that in “underlying” or “deep” or “logical” syntax, sentence (1) contains an expression used to refer to a location, an expression that is ‘aphonic’, ‘phonetically null’, ‘phonologically empty’, ‘silent’, ‘implicit’, ‘tacit’, ‘covert’, ‘hidden’, or ‘buried’, as far as surface syntax is concerned.

(vii) No interesting thesis in *psycholinguistics* about the process of interpretation is implied by the postulation of unarticulated constituents. In particular, it involves no commitment to the view (or to the denial of the view) that understanding a particular utterance of (1) involves mentally constructing or reconstructing a longer sentence such as ‘it’s raining here’ or ‘it’s raining in Reykjavík’. It is an empirical question whether something like that does or doesn’t take place, and no amount of a priori speculation is going to illuminate the matter.

(viii) Since it is possible to use sentence (1) here in Reykjavík to talk about the weather in Genoa or London, it cannot be the *extensional* fact of the speaker’s location that determines the unarticulated constituent of the proposition the speaker expresses, but the speaker’s *intentions* in uttering (1). A philosopher who espouses the language of thought hypothesis may well illuminate the unarticulated constituent of the proposition I express by uttering (1) by matching it with a component of the Mentalese representation constituting the thought to which I am giving expression. The proposition I express by uttering (1) contains an unarticulated location by virtue of the location’s *irreducible rôle* in that thought.

The above characterization of Perry’s proposal was all very compressed, of course, and my own Gricean bias crept in because I often talked about a *speaker* (rather than his words or his use of some expression, or his utterance of some expression) referring, saying, and expressing

propositions. This will be important later. Perry, as I said, talks about *uses of expressions* designating objects, expressing propositions and so on (1986: 207-8).

#### 4. PERRY'S OWN WORDS

Let us turn now to Perry's own words, which appear to have been taken in different ways by different people.<sup>35</sup> In his earliest remarks on this topic, Perry begins by saying that he is going to study "the possibility of talking about something without designating it" (1986: 206). Only someone with the peculiar combination of grammatical and Gricean grievances I have about philosophers' uses of the verbs 'refer', 'denote', 'designate', 'predicate', 'say', 'imply', and 'mean' is likely to worry about this remark, and in any event it is just a rough pointer and should not be subjected to the sort of remorseless scrutiny to which philosophers are constitutionally prone to subject one another's remarks. So let me just say that I prefer to invoke a distinction between referring to *X in doing something* (e.g. in uttering 'it's raining') and referring to *X with something* (e.g. with 'Reykjavik' or with 'here').<sup>36</sup> The latter is meant to be equivalent to using something (e.g. 'Reykjavik' or 'here') to refer to *X*, where the understood subject of 'refer' points to the agent rather than the tool.<sup>37</sup> So, I have two simple transpositions of Perry's remark: I am interested in "the possibility of referring to something without using a word to refer to it", alternatively "the possibility of referring to *X* without referring to *X* with a word". That is the way I shall talk later, and I hazard there is nothing here to alarm Perry.<sup>38</sup>

Back to Perry's own words. Concerning an utterance of (1) made by his younger son after looking out of the window one morning, Perry says,

What my son said was true, because it was raining in Palo Alto. . . . In order to assign a truth-value to my son's statement, as I just did, I needed a place. But no component of his statement stood for a place . . . . Palo Alto is a constituent of the content of my son's remark, which no component of his statement designated; it is an unarticulated constituent. (Perry, 1986: 206)

This oft-quoted passage occurs *before* Perry introduces propositions as entities containing objects and properties, and before he talks about propositions expressed, and any perplexity one feels in reading it is probably due to these facts. We must be careful, however, with 'what my son said', 'statement' and 'remark'. The words 'statement' and 'remark' have an all too convenient act-object (perhaps process-product) ambiguity also found with 'use', 'utterance', 'assertion', and so on.<sup>39</sup> The word 'statement' is used in a head-spinning array of ways in philosophy, linguistics, and law. Sometimes occurrences can be replaced by 'sentence', and sometimes by 'use of a sentence' or by 'utterance of a sentence' (both of which also have the act-object ambiguity). And when it occurs in the contexts of certain verbs the situation worsens. Sometimes 'the statement made' (by a person? by a sentence? by a use of a sentence? by an utterance?) can be replaced by 'the proposition expressed', 'what is said, or 'what is stated'. All of this can make it exceedingly difficult to establish what a writer means when talking about the truth or falsity of a statement or about the components of statements, especially when debates about the bearers of truth and falsity are lurking in the shadows.

In the passage just quoted, Perry begins by talking of 'what my son said' and 'my son's statement' being true. If one is staunchly of the persuasion that propositions are the principal bearers of truth or falsity, this might well suggest that replacing 'what my son said' and 'my son's statement' by 'the proposition my son expressed' will preserve Perry's meaning. And whilst this might seem to sit well with his use of 'a statement made by the use of a sentence'

(1986: 208), it would not sit well with his use of ‘the propositional content of the statement made’ and ‘the propositions expressed by statements’ (1986: 207), or with his use of ‘the proposition the statement expresses’ (1986: 208). And it would not square with the claim in the passage we are examining that ‘no component of [my son’s] statement stood for a place’, unless this occurrence of ‘[my son’s] statement’ were replaceable by something quite different from ‘the proposition my son expressed’, perhaps ‘the sentence my son used’ or ‘the utterance my son produced’. Perry’s use of ‘component’ rather than ‘constituent’ is surely pointed: propositions have *constituents*, sentences, or utterances thereof, have *components*.<sup>40</sup> At least that is the way I read him here and on p. 207.<sup>41</sup>

Now what of the remark that ‘Palo Alto is a constituent of the content of my son’s remark’. Easy: ‘the content of my son’s remark’ is replaceable by ‘the proposition my son expressed’ (that is, Perry’s ‘my son’s remark’ in the original could itself be replaced by ‘my son’s utterance of the sentence “it’s raining”’). And the final occurrence of ‘of his statement’ can be replaced by ‘of the sentence he used, or of the utterance he produced’. The net result, on my reconstruction:

The proposition my son expressed was true, because it was raining in Palo Alto. . . . In order to identify the proposition my son expressed and evaluate it for truth or falsity, as I just did, I needed a place. But no component of the sentence he used stood for a place . . . . Palo Alto is a constituent of the proposition my son expressed, which no component of the sentence he used, or of the utterance he produced, was used to refer to; it is an unarticulated constituent.

This is how I have always understood Perry at any rate.<sup>42</sup>

As far as Perry is concerned, the postulation of unarticulated constituents itself involves no commitment to the existence of (or to the denial of the existence of) ‘covert’ expressions in syntactic structure, no commitment to a distinction (or to the denial of a distinction) between a sentence’s superficial form (in contemporary jargon, its PF) and its underlying form (its LF):

there is no basic problem with a statement being about unarticulated constituents. In particular, we do not need to first find an expression, hidden in the “deep structure” or somewhere else and then do the semantics of the statement augmented by the hidden expression. Things are intelligible just as they appear on the surface, and the explanation we might ordinarily give in nonphilosophical moments, that we simply understand what the statement is about, is essentially correct (1986: 211)

Notice that Perry does not say there is no hidden expression in sentence (1), only that on his proposal “we do not *need* [my italics, SN] to first find” such an expression. Perhaps we will find good syntactic evidence for a hidden locative expression in the sentence, but Perry is simply skirting that issue here. If syntacticians come back to him with evidence, of course he will listen. But it would have to be *syntactic* evidence not just facts about how uses of (1) are *interpreted*. That much we know already, for it was precisely those facts that Perry pointed out to us in the first place.

There is one final feature of Perry’s 1986 discussion we need to look at. Perry recognizes that the unarticulated constituent of the proposition a speaker expresses by uttering (1) need not be the *speaker’s* location. So if this extensional fact does not determine the constituent, what does? I have already offered my own Gricean gloss on this: the speaker’s communicative intentions. That Perry is attracted to the Gricean line, seems evident enough:

It is simply facts about the speaker’s intentions that, perhaps limited by what the speaker can expect the audience to figure out, that determines which place is being talked about (1998: 9).



The intentions and beliefs of the speaker are clearly key factors. . . . it is natural to think that we are explaining which unarticulated constituent a statement is about, in terms of something like the *articulated* constituents of the beliefs and intentions it expresses (1986: 210-11).

The second passage has given me a headache for many years, and I am not sure I have a better grasp of it today than I did in the mid 1980s. On a quick skim the point seems perfectly clear and Gricean: speakers' intentions and beliefs determine unarticulated constituents. But the more one looks at the passage, the more one feels there is a lot more going on, elusive stuff. The final phrase is an awkward one to interpret as the pronoun 'it' appears to be anaphoric upon the indefinite description 'a statement' and in this context the pronoun is naturally read as if it were equivalent to an occurrence of the definite description 'the statement in question'. So, the final phrase contains a device that is meant to be read as if it contained the dreaded word 'statement'. We have talked of statements, construed as uses of sentences, as expressing *propositions*. Now we have to get our minds around the idea of statements expressing *beliefs* and *intentions*. We need to bear in mind a distinction Crimmins and Perry (1989) emphasize in their work on attitudes and attitude ascriptions between a belief itself (a concrete particular) and the *content* of that belief (an abstract object), the *object* of that belief, the *thing believed*. Concrete beliefs are cognitive structures, causally efficacious in our mental life. Belief contents are things we use to *classify* concrete beliefs. Since we have been talking about statements expressing *propositions*, talk of statements expressing *beliefs* and *intentions* might suggest that here Perry is talking about belief *contents*. But that does not seem to square with the idea of explaining 'which unarticulated constituent[s] a statement is about' in terms of 'the *articulated* constituents of the beliefs and intentions it expresses'. I am a little worried about sticking my neck out here and I'm perfectly willing to be corrected, but my best guess as to what Perry means is this:

The intentions and beliefs of the speaker are clearly key factors. . . . it is natural to think that if a proposition  $\langle \dots \alpha \dots \rangle$  expressed by a use of a declarative sentence  $X$  by a speaker  $S$  contains an unarticulated constituent  $\alpha$ , we can specify  $\alpha$  by reference to something like a constituent of a belief  $S$  with content  $\langle \dots \alpha \dots \rangle$ , whose content  $S$  intended to be expressing by his use of  $X$ .

Quite a mouthful, but I think it is not unreasonable to suppose that Perry had something like this in mind.

In more recent work, Perry has elaborated on his 1986 discussion. Sometimes when we are interpreting,

We lack the materials we need for [identifying] the proposition expressed by a statement, even though we have identified the words and their meanings, and consulted the contextual factors to which the indexical meanings direct us. Some of the constituents of the proposition expressed are *unarticulated*, and we consult the context to figure out what they are. (1998: 6)

A location is an unarticulated constituent of the proposition expressed by an utterance of (1):

It is a constituent, because, since rain occurs at a time in a place, there is no truth-evaluable proposition unless a place is supplied. It is unarticulated, because there is no morpheme that designates that place (1998: 9; 2001: 45)

In such a case,

the task of identifying the unarticulated constituents of the proposition expressed by an utterance remains after all of the relevant semantic rules have been understood and applied (1998: 10)

That is, there is a ‘post-semantic’ (1998: 10) or ‘content-supplemental’ (2001: 45) use of context in the utterance interpretation process. (The later label is meant to replace the earlier one.)

It is clear from these later remarks that Perry’s position is in harmony with those of Sperber and Wilson (1986), Carston (1988), Récanati (1988, 1993, 2001), Neale (1990) on one important point: the proposition expressed on a given occasion may be underarticulated by the meaning of the sentence uttered and the assignment of referents to all names, indexicals, and so on, and the fixing of anaphoric connections. We are as one on the general matter of linguistic underarticulation. And as far as the relation between sentence (1) and the proposition it is used to express on a given occasion is concerned, Perry’s thesis that the proposition may well contain an unarticulated constituent seems to me correct.

#### 5. ALTERNATIVE WORDS

Transposed into the way of talking I favour, Perry’s point about utterances of (1) is this: If I utter (1) (right now) to talk about the weather in Reykjavik (right now), to express the proposition (right now) that it’s raining in Reykjavik (right now), then Reykjavik itself is a constituent of the proposition I express—on one common conception of propositions, at any rate—but the name ‘Reykjavik’ is not a component of the sentence I utter.<sup>43</sup> A pretty convincing example, it would seem, of the failure of *isomorphism of form and content*, a breakdown of the one-to-one mapping between the meaningful components of a *sentence* and the constituents of the *proposition* it is used to express on a particular occasion. In the direction we have been considering, a breakdown amounts to the postulation of an unarticulated constituent. In the opposite direction, a breakdown amounts to the postulation of a *non-projecting articulant*. On direct reference accounts of demonstrative descriptions (‘this barn’, ‘that tall, anaemic man’) and referential uses of definite descriptions (‘the murderer’, ‘the man drinking Champagne’), the nominals would be non-projecting articulants.<sup>44</sup>

I am concerned mainly with unarticulated constituents here, although the postulation of non-projecting articulants does raise all sorts of interesting questions, as we shall see. (Does Reykjavik occur twice in the proposition I express by uttering ‘it’s raining here in Reykjavik’?) Unarticulated constituents have come under fire of late, and one of my goals here is to show that most of the criticism is misguided, that it fails to take into account many things that Perry and other underarticulation theorists have taken into account, sometimes only implicitly, but often explicitly. At the same time, I want to explain why I think there is an awful lot of syntactic, semantic, pragmatic, and (most importantly) conceptual work to do here if we are to provide an adequate theory of underarticulation.

#### 6. UNARTICULATED CONSTITUENTS AND THE INTERPRETATION OF NOUN PHRASES

Perhaps rashly, I just assumed the truth of the Underarticulation Thesis in *Descriptions* without much comment, mentioning the fact in a few notes and elaborating by way of particular examples rather than by discussion of the underlying concepts.<sup>45</sup> The idea of an isomorphism of form and content in the use of natural language seemed to me, as I think it did to my teachers, either a useful methodological ploy, if used cautiously, or else a poisonous hangover from the age of formal language philosophy, out of place in a realistic examination of the use of natural language. At the time I was writing *Descriptions*, I toyed with the idea of seeing uses of (1) and (2)

- (1) it's raining.
- (2) they ought to impeach the mayor

as involving the same general phenomenon, and numerous drafts of Ch 3 contained attempts to spell this out. Finally (and fortunately), I held off because I was nervous there might be something *syntactic* going on in (2) which was not going on in (1). Today, I'm inclined to think I made the right decision for the wrong reason. To place any weight on the similarity between (1) and (2) is to make certain *semantic* mistakes. (I am less sure now that it involves a syntactic mistake.) Important differences between uses of (1) and (2) will occupy me a good deal here. For the moment, however, I want to dwell on the superficial similarities.

First, in both of the scenarios just described, the unarticulated constituent appears to be a *place*, Reykjavík. (A significant difference: with respect to my use of (1): Reykjavík is construed as a *geographical location*, whereas with respect to my use of (2) it is construed as a *geopolitical entity*.) Second, in the scenarios discussed, the unarticulated constituent was the place of utterance. But this is not something dictated by the meanings of the sentences themselves. I may utter (1) here in Reykjavík to express the proposition that it's raining *in Palo Alto*. Suppose Perry is here giving a lecture and is concerned about the weather back home as he has recently replanted his garden. It so happens that I am speaking on the telephone to Ken Taylor, who is in Palo Alto, and Taylor is lamenting the rain that has not let up for three days. I tell Perry I'm talking to Taylor and inform him about the weather in Palo Alto by uttering (1). In *Descriptions*, I noted the parallel fact in connection with utterances of sentences such as (2). In the midst of a conversation we are having in Reykjavík about the quality of the roads in *Palo Alto*, Perry could use (2) to express the proposition that the mayor *of Palo Alto* ought to be impeached.<sup>46</sup>

The noun 'mayor' is just one among many that are frequently used in such a way that implicit reference to a place or a location is part and parcel of the speech act. No doubt all sorts of useful classifications can be made here, but for present purposes it will suffice to have a representative list of what I shall call *implicit geopolis*: 'mayor', 'king', 'prime minister', 'president', 'senator', 'ambassador', 'citizen', 'resident', 'inhabitant', 'native', 'national', 'local', 'foreigner', 'alien', 'exile', 'refugee', 'guest', 'visitor', 'inmate'. The principle used in drawing up this list is roughly this:  $\alpha$  cannot be an *N* without being an *N* relative to something  $\beta$  or some pair of things  $\langle \beta, \gamma \rangle$ .  $\alpha$  cannot be a mayor without there being some place  $\beta$  that  $\alpha$  is mayor *of*.  $\alpha$  cannot be an ambassador without there being a place  $\beta$  that  $\alpha$  is ambassador *from* and a place  $\gamma$  that  $\alpha$  is an ambassador *to*. Some geopolis have straightforward adjectival siblings ('foreigner'-'foreign', 'local'-'local'), others do not ('king'). Some have straightforward verbal siblings ('president'-'preside', 'resident'-'reside', 'visitor'-'visit'), others do not ('foreigner'). Sometimes meaning shifts occur between the noun and sibling ('presidential' does not mean 'is a president' for example). Some geopolis admit of both informal and legal uses which could clash ('resident'). Some of them are, relative to somewhere or other it turns out, applicable to everyone ('foreign'), whereas others are not ('mayor'). I shall not try to impose any order here. (My private attempts have been unimpressive, to say the least.) Rather, I want to touch on some rather general issues about the syntax, semantics, and interpretation of geopolis with a view to exposing certain things that will be useful when we return to weather verbs.

Consider a binary relation *M* that holds of a pair  $\langle \alpha, \beta \rangle$  of objects iff  $\alpha$  is a mayor of  $\beta$ .<sup>47</sup> *M* is related in *some* way to the meaning of the English noun 'mayor'—didn't I just use 'mayor'

in the biconditional! Three possibilities come straight to mind. (i) The noun ‘mayor’ has as its meaning the *binary* relation  $M$ . (ii) It has as its meaning the *unary* relation  $\lambda x \exists y Mxy$ . (iii) Some occurrences of ‘mayor’ have as their meaning  $M$ , other occurrences have as their meaning  $\lambda x \exists y Mxy$ . On option (iii), there would be a similarity with the way the verb ‘eat’ is sometimes analysed. Transitive occurrences have as their meaning a binary relation  $E$  that holds of a pair  $\langle \alpha, \beta \rangle$  of objects iff  $\alpha$  eats  $\beta$ . Intransitive occurrences have as their meaning the unary relation  $\lambda x \exists y Exy$ . Borrowing this terminology, let us say that the noun ‘mayor’ appears to have both transitive and intransitive uses.<sup>48</sup>

These options involve no intrinsic commitment to any interesting *syntactic* thesis about ‘mayor’. For example, there is no commitment to treating all or some occurrences of ‘the mayor’, ‘every mayor’ and so on as containing an aphonic, indexical argument that speakers use to refer to different things on different occasions. That *might* be a syntactic position we find we want to accept for various *syntactic* reasons; but nothing in the *semantic* proposals themselves involves such a commitment. As Perry (1986, 1998, 2001) stresses, there is nothing *incoherent* in the idea of an expression having as its meaning an  $n$ -place relation whilst having  $m$  argument positions in syntax, where  $m \neq n$ . And on his view, this may explain the presence of certain unarticulated constituents. It is an *empirical* question whether natural languages actually contain expressions for which  $m \neq n$ , and we can have no time for a priori claims that they cannot.

The mere fact that (i)-(iii) come to mind so readily may suggest that geopolis differ in some common and interesting way from ‘table’ and ‘tree’. It is hard to imagine getting to the point of needing to choose among competing accounts of the relation between the meaning of the word ‘tree’ and a unary relation (property)  $T$  that holds of  $\alpha$  iff  $\alpha$  is a tree. Certainly nothing is a mayor or a tree unless it is *at* a location (geographically speaking), but nothing is a mayor unless it is *at* a location and also mayor *of* a location (geopolitically speaking). (For a caveat, see below.) And surely this is why we are tempted to start talking about a binary relation in connection with the meaning of ‘mayor’ but not in connection with the meaning of ‘tree’.

So what are the right accounts of the syntax and semantics of ‘mayor’? The issues here are complex. As far as grammar is concerned, it is clear that no mandatory overt argument is required: ‘the mayor’ is just as well-formed as ‘the mayor of Reykjavík’. Nonetheless, we cannot immediately discount the possibility that syntacticians will find evidence that the noun ‘mayor’ always co-occurs with an *aphonic locative* of some sort. On such an account, (2) might have the syntactic form we can sketch as (3), where  $e$  is the aphonic, the position it occupies in (3) being occupied by ‘of Reykjavík’ in (4):

- (3) they ought to impeach [<sub>DP</sub> the [<sub>NP</sub> mayor  $e$ ]]
- (4) they ought to impeach [<sub>DP</sub> the [<sub>NP</sub> mayor [of Reykjavík]]].

And it might seem very natural to ally such a syntactic hypothesis with semantic hypothesis (i), the thesis that ‘mayor’ expresses the binary relation  $M$ . The idea would be that  $e$  is an aphonic indexical that might be used to refer to Reykjavík on one occasion, to London on another, and so on. Thus (3) and (4) might be used on one occasion to express the location-involving proposition whose truth conditions are given helpfully by (5):

- (5) [*the  $x$ :  $M(x, \text{Reykjavík})$ ]* they ought to impeach  $x$ .

But this will not do. There are several mistakes we must be careful not to make here. The first is that a felicitous (i.e. non-incomplete) use of a definite description based on a geopol

always involves a *particular* unarticulated place. That this is incorrect is clear from the fact that the following *quantified* sentences might be used to express perfectly determinate propositions in response to questions about a particular man:

- (6) Smith is the mayor of somewhere or other.
- (7) Smith is the ambassador to some place or other from somewhere or other.

Notice that ‘somewhere or other’ takes large scope on the most natural readings of these sentences, and that it is quantifying into the descriptions that secures uniqueness:

- (6') [*somewhere y*] [*the x: x mayor of y*] *Smith = x*
- (7') [*somewhere y*] [*somewhere z*] [*the x: x ambassador of y to z*] *Smith = x*.<sup>49</sup>

The basic point here is that *the property of being a place* rather than a *particular place* is a component of the propositions expressed. This is a trivial consequence of the distinction between singular and quantified sentences. The contrast between ‘Smith is the mayor of Reykjavík’ and ‘Smith is the mayor of somewhere or other’ involves nothing that is not already involved in the contrast between ‘Smith left his keys in Reykjavík’ and ‘Smith left his keys somewhere or other’.

It will hardly have gone unnoticed that there are much simpler sentences containing indefinite descriptions that would do as well as (6) and (7) in most communicative settings:

- (6'') Smith is a mayor.
- (7'') Smith is an ambassador.

And here it is clear that no *particular* locations would be involved.<sup>50</sup> (Notice that (6'') and (7'') are not *equivalent* to (6) and (7): unlike (6), (6'') is compatible with the existence of two mayors of the place Smith is a mayor of.)

The second mistake we must guard against here is thinking that that felicitous uses of incomplete definite descriptions based on implicit *geopols* will always involve unarticulated places (or other constituents that involve the concept of *place*).<sup>51</sup> Whatever property it is that correctly characterizes the entities that mayors or kings are mayors or kings *of*—places, communities, or whatever—a felicitous (i.e. non-incomplete) use of a definite description based on ‘mayor’ or ‘king’ need not involve the expression of a proposition containing either a *thing* with that property or *that property* itself as an unarticulated constituent. Suppose it is known to us that only one mayor has ever broken the bank at Monte Carlo. Surely I can make a felicitous, indeed true, assertion using (8):

- (8) the identity of the mayor who broke the bank at Monte Carlo is no longer known.

A more interesting example. Suppose I am to dine tonight with Ragga, who has quirky ideas about dinner parties. She tells me early this morning that there will be, exactly one mayor, one king, one ambassador, one sheriff and so on for dinner, the identities of none of which are known to her or to me in advance, as each is to be chosen by Ragga’s well-connected sister later in the day. Ragga decides to arrange a seating plan in advance, even though she does not know who is coming. She says to me,

- (9) I want you to sit opposite the mayor, and between the king and the ambassador.

The proposition Ragga expresses is not the place-involving proposition that she wants me to sit opposite, say, the mayor of Reykjavík, and between the king of Norway and the British

ambassador to Iceland. Nor is it the monstrous *property-of-place-involving* proposition whose truth conditions we might capture as follows:

- (10) [somewhere *t*] [somewhere *u*] [somewhere *v*] [somewhere *w*]  
 [the *x*: *x* mayor of *t*] [the *y*: *y* king of *u*]  
 [the *z*: *z* ambassador of *v* to *w*]  
*Ragga* wants *Stephen* to sit opposite *x* and between *y* and *z*.

The proposition *Ragga* expresses is something like the proposition that she wants me to sit opposite the mayor dining here tonight, and between the king dining here tonight and the ambassador dining here tonight.

The use of geopol nouns with determiners other than ‘the’ or with no (phonic) determiner at all reinforces the point. When the official photographs are being taken at the opening of a meeting of heads of state, the following announcement might be made in connection with the general photograph:

- (11) all presidents and prime ministers in the middle, please, ambassadors to the left,  
 private secretaries and local dignitaries to the right.

What these examples seem to demonstrate is that ‘mayor’ is not quite as different from ‘table’ as we might have thought initially. True, one cannot be a mayor without being the mayor *of* some place or community. But quite what follows about the syntax and semantics of ‘mayor’ is not yet clear. What we appear to have established so far is only that it is pretty pointless pursuing the following combination: the meaning of ‘mayor’ is the binary relation *M*, and ‘the mayor’ has a syntactic structure [<sub>DP</sub> the [<sub>NP</sub> mayor *e*]] in which *e* is an aphonic, indexical, locative. Perhaps the *structure* is right, but *e* is not required to be a locative, its presence dictated not by the meaning of ‘mayor’ but by a quite *general* fact: *every* nominal co-occurs with an aphonic argument.<sup>52</sup> This is certainly an idea that needs exploring, but the fact that we have been led to it suggests the question of how we interpret utterances of ‘the mayor’ is not itself a question about unarticulated places or communities at all, even if, as seems correct, the meaning of ‘mayor’ crucially involves the property of place or community.

We have been led astray, I think, in our quest to understand the syntax and semantics of nouns like ‘mayor’, ‘father’, and ‘murderer’ by the general problem of quantifier incompleteness, of which the case of incomplete descriptions is an instance. And this is not surprising: the problem of incomplete descriptions has been treated by many people as if it were properly soluble only by saturating pre-existing arguments, or at least filling pre-existing argument positions. For certain nouns, the argument position is intuitive, revealed by meaning (‘mayor’, ‘father’, and ‘murderer’). For others it is not (‘tree’, ‘table’, ‘cloud’), suggesting we dig deeper until we find it. I think this is mistake. We should be pursuing option (ii): the noun ‘mayor’ has as its meaning the unary relation  $\lambda x \exists y Mxy$ . The difference between ‘tree’ and ‘mayor’ is not that the latter stands for a binary relation; the difference, rather, is that whereas ‘tree’ stands for a non-composite unary relation, ‘mayor’ stands for a composite unary relation built around a non-composite binary relation. This leaves us with the task of explaining the possibility of expressing the proposition that the mayor of Reykjavík will sit here by uttering (12) or (13):

- (12) [<sub>DP</sub> the [<sub>NP</sub> mayor]] will sit here  
 (13) [<sub>DP</sub> the [<sub>NP</sub> mayor [of Reykjavík]]] will sit here.

Let us take (13) first. The idea would be that ‘of Reykjavík’ is an *argument-affecting adjunct*. The noun ‘mayor’ is used to express the unary relation  $\lambda x \exists y Mxy$  and the expression ‘of Reykjavík’ is used to refer to Reykjavík; and so (in a way that needs to be elaborated) the whole NP ‘mayor of Reykjavík’ is used to express the unary relation  $\lambda x M(x, \text{Reykjavík})$ ; and so the sentence as a whole is used to express the proposition whose truth conditions are given helpfully by (13'), which can be simplified as the still more helpful (13''):

(13') [the  $z: \lambda x M(x, \text{Reykjavík})z$ ]  $z$  will sit here

(13'') [the  $z: M(z, \text{Reykjavík})$ ]  $z$  will sit here.

Now what of the NP ‘mayor’ in (12)? Here it would seem that a little more work is required. All we get from syntax and semantics is a proposition whose truth conditions are given by (14'), hence (14''):

(14') [the  $z: \lambda x \exists y M(x, y)z$ ]  $z$  will sit here

(14'') [the  $z: \exists y M(z, y)$ ]  $z$  will sit here.

The problem is that (14'') is true only if there is exactly one mayor. *Now* we face the problem of incomplete descriptions. And *now* we can see where unarticulated constituents come into the picture. Consider two distinct utterances of (12). The first is made in a context in which someone is telling me where the mayor *of Reykjavík* is to sit. The second is made by Ragga in connection with her dinner party: she is telling me where the mayor who comes to diner tonight will sit. The structure of the unary relation expressed by ‘mayor’ means one very natural way of providing a complete interpretation of utterances of ‘the mayor’ is always lurking in the shadows. Interpretation does not *have* to take advantage of this, but in principle it can. And it is this that distinguishes, on the one hand, ‘mayor’, ‘king’, ‘president’, ‘father’, and ‘murderer’, from, on the other, ‘tree’, ‘table’, and ‘cloud’.

In the light of our understanding of ‘mayor’, we should revisit and query the idea that the verb ‘rain’ is intrinsically and richly locative. I do not mean this in the uninteresting sense that we can sometimes express a proposition about no *particular* location using a sentence that contains the verb ‘rain’. For that is easy enough, and we have a sentence tailor-made for such use: ‘it’s raining somewhere.’ This fact is not interestingly different from the fact that we can sometimes express propositions about no particular *person* using sentences that contains verbs such as ‘kill’ and ‘die’. We have sentences tailor-made for such use: ‘the flood killed someone’, ‘someone died.’

## 7. UNARTICULATED CONSTITUENTS AND THE INTERPRETATION OF VERB PHRASES

How tight, then, is the connection between the interpretation of weather statements like (1) and (2) and the interpretation of quantified statements like (3) and (4)?

- (1) it’s raining
- (2) it’s windy
- (3) the mayor ought to be impeached
- (4) foreigners need a visa.

The following points seem clear enough: (i) In both types of cases, we are inclined to say that typically the proposition expressed contains a location as a constituent. (ii) in neither type of case are we tempted to say we are dealing with syntactic elision of the sort we find in, say, ‘Perry is at Stanford and Crimmins is too’. (iii) In neither case are we tempted to say we are dealing with less than a complete, well-formed sentence (as we might be tempted to say when

confronted with anacoluthon, for example, ‘the mayor of . . . look there he is!’). Of course we cannot afford to overlook the possibility that the purported failure of isomorphism between the meaningful constituents of (1)-(4) and the components of the propositions we express on particular occasions by uttering them is only *apparent*. It is no news that many generative linguists have argued for a distinction between the phonic and aphonic elements of a sentence, a distinction that makes perfect good sense if a sentence is analysed, in the manner suggested by Chomsky, as a pair comprising a PF and an LF, the former relevant to sound, the latter to meaning.<sup>53</sup> It is at least arguable (a) that the sentence whose PF we represent in traditional orthography as (1) contains an indexical, locative aphonic in its LF, and (b) that when I used (1) to express the proposition that it was raining in Reykjavík I was using this aphonic to refer to Reykjavík, in much the same way as I could have used the phonic ‘here’.<sup>54</sup> There is much to say about the aphonic indexical proposal; but there is much else of a syntactic, semantic, and pragmatic nature to say about weather statements first.

There are some obvious differences between the weather statements (1) and (2). In (1), we find a form of the verb ‘rain’; in (2) we find the adjective ‘windy’. To add intensity to (1) we can modify the verb with an adjective like ‘hard’; to add intensity to (2) we can modify the adjective with ‘very’. For the moment, I want to put aside adjectival weather statements and consider only verbal weather statements like (1). And I want to focus for a moment not on the unarticulated locations of propositions expressed by uses of verbal weather statements but on whether there might not be *additional* unarticulated constituents of these propositions. For the sake of argument, let us just assume without prejudice that raining is a relation that has at least two relata, places and times, and look at whether there might be a *third* relatum. Consider the following:

- (5) it’s raining cats and dogs
- (6) it’s raining a very fine rain
- (7) it rains nitric acid on some planets
- (8) it’s raining blood/frogs/pebbles
- (9) it’s raining men (Hallelujah!)/money.

(5) is an idiom, ‘cats and dogs’ understood as something like ‘very hard’. But ‘cats and dogs’ is a DP nonetheless, just like ‘a hard rain’, ‘nitric acid’, ‘blood’ etc. Do we say that ‘rain’ optionally takes a DP complement? Or do we say it always does so and that such a complement is implicit in (1), that when I use that sentence to say that it’s raining in Reykjavík, I am using ‘rain’ in some sort of default way to express the idea of raining the stuff it usually rains, viz. water?

The issues here seem similar to those involving ‘eat’ and ‘mayor’ discussed earlier. Consider a ternary relation  $R'$  that holds of a triple  $\langle \alpha, \beta, \gamma \rangle$  of objects if, and only if, at time  $\alpha$ , in place  $\beta$ , substance  $\gamma$  is being rained.  $R$  is related in *some* way to the meaning of the English verb ‘rain’—didn’t I just use ‘rained’ in the biconditional! Three possibilities. (i) The verb ‘rain’ has as its meaning the *ternary* relation  $R'$ . (ii) It has as its meaning the *binary* relation  $\lambda y \lambda x \exists z R'xyz$ . (iii) Some occurrences of ‘rain’ have as their meaning  $R'$ , other occurrences have as their meaning  $\lambda y \lambda x \exists z R'xyz$ . Adapting earlier terminology, on this option the verb ‘rain’ appears to have both transitive and intransitive uses. None of these options seems particularly attractive, but somehow we need to explain the uses of (5)-(9).

Are we dealing with a single verb ‘spit’ in the following?

- (10) it’s spitting



- (11) Bill is spitting
- (12) Bill is spitting blood.

Utterances of (10), where ‘spit’ is used as a weather verb (in British English, at least), seem no different from utterances of (1) in relevant respects: the proposition I express by uttering (10) might be the proposition that it is spitting *in Reykjavík*, a proposition that contains Reykjavík as an unarticulated constituent. But what about utterances of (11) and (12), which appear to contain the same verb? I have not checked, but I imagine the use of ‘spit’ as a weather verb evolved from its uses in sentences of the forms of (11) and (12), where there is no issue of an unarticulated constituent (except a potentially unarticulated spittle, of course).

That considerable work is going to be involved teasing apart syntactic, semantic, and pragmatic considerations involving the uses of verbs of interest here is reinforced by reflections on utterances of (13)-(15):

- (13) it’s pouring today
- (14) you’re pouring today; I poured yesterday
- (15) you’re pouring the tea; I poured (it) yesterday.

Suppose Ósk and I take turns pouring afternoon tea, wherever we happen to be, and that we take afternoon tea just once each day. I may utter (14) or (15) to tell her that it is her turn today, and to state my justification. But *the location* of my tea-pouring yesterday does *not* seem to be an unarticulated constituent of the proposition I express: it does not seem relevant to the identity of the proposition I expressed *where* I poured our tea yesterday—which is not to say Ósk will not try to recall where we were yesterday afternoon at around 4:00 p.m. in order to see whether the proposition I am expressing is true. Under what conditions is it true? It is true if we were in our favourite café when I poured our tea, and equally if we were at Sindri’s house, or at the side of the road on the way to Gulfoss. In this respect, utterances of (14) and (15) appear to be unlike utterances of (13).

Or are they? A modification of our example might suggest matters are more complicated than they first seem. Suppose Ósk and I take tea *twice* everyday, once at a friend’s house outside Reykjavík, and once in Reykjavík at our favourite café. And suppose that it is only when we take our tea in the café in Reykjavík that we ritually alternate the pouring. Could I utter (14) or (15) in such a scenario to express the proposition that today it is Ósk’s turn to pour the tea *in Reykjavík*? (Or, perhaps, her turn to pour it *in our favourite café in Reykjavík*?) If so, then Reykjavík *would* appear to be an unarticulated constituent of the proposition I express. So perhaps it is a “pragmatic” or “context-sensitive” matter whether the proposition someone expresses by uttering (14) or (15) contains a location as an unarticulated constituent. Whether this is so is something we shall need to investigate, along with any repercussions our answer may have for utterances of (1)-(9).

One thing is certain: we are not going to get to the heart of the *interpretive* matter by simply embellishing the syntactic structures of English sentences with purportedly indexical aphonics. Perhaps there are good syntactic reasons for thinking that some of (1)-(9) *do* contain such devices and that when we utter such sentences we use these aphonics to refer to places. But a general theory of the commonsense nature of utterance interpretation still has to provide an account of *how* such devices are understood on occasions in which (1)-(9) are produced, just as such a theory has to explain how *phonic* indexicals like ‘he’, ‘she’, ‘it’, ‘this’, ‘that’, ‘here’, and ‘there’ are understood.

We are left with some pressing questions. First, is Perry right about the propositions we express when uttering sentence (1) containing unarticulated constituents? Second, how much uniformity is there in the way locations ‘get into’ the propositions we express by uttering sentences (1)-(9). Third, how are we to reconcile the seemingly “pragmatic” absence or presence of an unarticulated location in the propositions I express using (14) or (15) in the different scenarios involving Ósk and the tea-pouring. Fourth, are there consequences of this unarticulated constituent business for the theory of *reference*? Did I *refer* to Reykjavík when I uttered (1)-(9) even though I did not use any expression to refer to Reykjavík? Did I *refer* to it when I uttered (14) in the second tea-pouring scenario? Fifth, what are the consequences of all of this for the theory of syntax? There would appear to be three broad options for any particular linguistic construction, the *subsyntactic* option, the *syntactic* option, and the *parasyntactic* option. I shall suggest that the first of these, proposed by Taylor (2001) is the most attractive.

## 8. LOCATIONS

With the name ‘Reykjavík’, we may refer to a geographical location, to a geopolitical entity, or perhaps to a still more complex entity altogether. We can certainly talk non-redundantly about Reykjavík’s location, and talk sensibly, in certain contexts, about digging up Reykjavík and relocating it in south-east Iceland.<sup>55</sup> The idea that there is a single entity that we always refer to when we use this name is surely incorrect.<sup>56</sup>

When we talk about the weather, we tend to be more interested in locations themselves, and these will be my principal concern here. But we need to take into account a few facts about reference to geopolitical entities if we are not to slip. Consider (1):

- (1) Reykjavík has more than 100,000 inhabitants.

Suppose I use this to express a proposition about a geopolitical entity. The proposition is *singular* and may be contrasted with the *general* propositions I express by uttering (2) or (3):

- (2) every capital city has more than 100,000 inhabitants  
 (3) many capital cities have more than 1,000,000 inhabitants.

The proposition I express by uttering (1) is *singular* (or *object-dependent*) in the following sense: there is a particular object *x*, viz. Reykjavík (the geopolitical entity), such that if *x* did not exist the proposition in question would not exist. There is an object *x*, viz. Reykjavík, such that the truth-value of the proposition in actual and counterfactual situations depends upon how things are with *x*. Given the way the world is, the proposition is true. But there are possible states of the world in which Reykjavík (the geopolitical entity) has fewer than 100,000 inhabitants, and so possible states of the world in which that proposition is false (it is not a necessary truth that Reykjavík has more 100,000 inhabitants).<sup>57</sup> On the Russellian conception of propositions that Perry and many who have discussed his work find appealing, to say that this proposition is Reykjavík-dependent is to say that it contains Reykjavík as a constituent.

The propositions I express by uttering (2) and (3), by contrast, are *general* (or *object-independent*). To be sure, there have to be particular objects, cities, that have populations in excess of 100,000 for the propositions to be true. But that does not make the propositions singular in our sense. There is no object *x* upon whose existence the existence of the propositions depends. (The propositions do not contain any particular city as a constituent.)

The truth-value of the proposition in a counterfactual situation might depend upon how things are with cities *distinct* from any actual capital city and might *not* depend on how things are with any actual capital city (suppose every country had a different capital)—if Akureyri were capital of Iceland, for example, then the truth or falsity of the proposition I express by uttering (2) would depend (in part) on how things are with Akureyri rather than Reykjavík.

I want now to discuss some very important points about the use of ‘singular’ (and, ‘object-dependent’) in philosophical exposition. These points are going to be central to much of what is to come, so I want to spell them out in a way that should preclude various common forms of misunderstanding. Typically, we use ‘singular’ with what I shall call a *linguistic wink*. Compare (4) and (5):

- (4) Reykjavík enchants many people
- (5) many people are enchanted by Reykjavík.

Strictly speaking, the propositions I express by uttering (4) and (5) are both *Reykjavík-dependent*. But, in point of fact, philosophers will often want to *contrast* (4) and (5), declaring the proposition I express by uttering the former to be singular (object-dependent) and the one I express by the latter to be general (object-independent). Why? Because ‘singularity’ (‘object-dependence’) is often used to classify a particular proposition bearing in mind the *grammatical subject* of some particular sentence used to express it. (The linguistic wink.) So although the distinction between singular and general propositions is meant to be a *metaphysical* one, in point of fact it is often treated as if it corresponded to a *linguistic* distinction between sentences with referential subjects and those with quantificational subjects. In consequence, although the proposition I express right now by uttering (5) is, strictly speaking, Reykjavík-dependent, we often classify it as *general* because it is not what (5) and (4) have in common that interests us, but what (5) and (6) have in common:

- (6) many people snore.

(In Perry’s (2001) terminology, the general proposition I express by uttering (6) is ‘lumpy’, as it contains an object as well as properties, but is not singular.) If there are philosophers who share our interests and maintain that I express the same proposition whether I utter (4) or (5), they will call it a singular proposition when winking at (4) and a general one when winking at (5).

Since quantified expressions may contain referential expressions as parts, we must take care when we consider utterances of a sentence like (7):

- (7) many people who live in Reykjavík are enchanted by it.

Strictly speaking the proposition I express by uttering (7) is Reykjavík-dependent, but often we will not classify it as singular in our discussions because we are actually winking at the *entire* subject expression, which is quantificational, not at one of its parts, ‘Reykjavík’, which happens to be referential. That is, we are not interested in what (7) has common with (4), but in what it has in common with (6) and (5). (The proposition I express by uttering (7) is ‘lumpy’.) Further caution must be exercised because of unarticulated constituents. Consider (8) and (9):

- (8) many people who visit are enchanted by Reykjavík
- (9) many visitors are enchanted by Reykjavík.

I may use (8) or (9) to express the proposition that many people who visit *Reykjavik* are enchanted by Reykjavik, although in the right circumstances I might use it to express the proposition that many people who visit *Akureyri* are enchanted by Reykjavik. Either way, the propositions are city-dependent, although we will often want to classify them as general when winking at their entire subject expressions.

The linguistic wink route to classification seems useless when discussing the propositions we express by uttering (10)-(12) because the subject expression, in surface syntax at least, is pleonastic ‘it’, which appears to function as neither a referential nor a quantificational expression:

- (10) it’s snowing in Reykjavik today
- (11) it’s snowing here today
- (12) it’s snowing today.

If I am using (10)-(12) to express the proposition that it is snowing *in Reykjavik* today, the proposition I express is surely Reykjavik-dependent. So let us simply stipulate that this proposition is singular, contrasting it with the general propositions I express by uttering (13) or (14):

- (13) it’s snowing today in every capital city I visited last year.
- (14) it’s snowing today in every city north of Reykjavik

Of course, the proposition I express by uttering (14) is Reykjavik-dependent; but we are winking at ‘every capital city except Reykjavik’ (not at ‘Reykjavik’) when we say the proposition expressed by a use (14) is general.

We must take care in some cases to specify *which* location we have in mind upon whose existence a proposition depends. Suppose we are discussing (15):

- (15) a man from Copenhagen told me it’s snowing.

It may be the *Reykjavik*-dependence of the proposition I express by uttering (15) that we are interested in, not the *Copenhagen*-dependence. As we shall see, when discussing locations we have to be careful in all sorts of ways.

The seemingly simple distinction between singular and general propositions is famously complicated by consideration of the propositions we express using sentences with definite descriptions as subjects. According to Russellians, the word ‘the’ is a quantificational device on a par with ‘every’ or ‘no’, so the proposition I express right now by uttering (16) is general:

- (16) the city which hosted the most famous chess match in history has over 100,000 inhabitants.

There is no object *x* upon whose existence it depends. There is no object *x* such that the truth-value of the proposition in actual and counterfactual situations depends upon how things are with *x*. Assuming, for the sake of argument, that the Fischer-Spassky match is the most famous chess match in history, the proposition is true. But it does not contain *Reykjavik* as a constituent. The proposition is Reykjavik-independent: In a counterfactual course of history in which the most famous chess match in history was played in Helsinki, the proposition would be true if Helsinki had a population that exceeded 100,000 in that world, and Reykjavik would not be relevant to this.<sup>58</sup>

When we talk about the weather we tend to be interested in geographical locations rather than geopolitical entities (although one can easily engineer cases for which matters are

otherwise). So I want to start talking now about *location-singular* and *location-general* propositions. The problem with location-singularity is that it is unclear what is involved in using *existence* to characterize it. (Of course, it is not entirely clear what is involved in using existence to characterize *object-singularity* either, but the situation with locations seems to me if anything worse.) Nonetheless, we can, I think, get what we want from talk of the truth-values of propositions in actual and counterfactual situations. We can distinguish the location-singular proposition I express by uttering (17) from the location-general propositions I express by uttering (18) and (19):

- (17) it rained last week in Reykjavík
- (18) it rained last week in every city I stayed in
- (19) it rained last week in the city I was staying in.

The truth-value at an arbitrary possible state of the world of the proposition I express by uttering (17) depends upon how things are with Reykjavík at that world. Not so the propositions I express by uttering (18) and (19), even though the only city I stayed in last week was Reykjavík, and it rained there. At worlds in which I happened to be staying only in London last week, the proposition is true if it rained *in London* last week.<sup>59</sup>

With these preliminaries out of the way we can now address concerns raised by those who maintain that the proposition I express by uttering (20) does not contain an unarticulated constituent:

- (20) it's raining.

Suppose I utter (20) in response to a question about the weather in Reykjavík, intending to communicate that it is raining here. The philosopher who denies that the proposition I expressed is location-singular (Reykjavík-dependent), who denies that it contains Reykjavík as an unarticulated constituent, has an immediate problem: he needs to tell us exactly what proposition I *did* express; but this is a task he has effectively blocked himself from executing. (a) He cannot say it is a location-singular proposition at all, for if it were, it would surely be the *Reykjavík*-dependent proposition that it is raining *in Reykjavík*, which contains Reykjavík. (It would be absurd to claim it was the proposition that it is raining in Iceland, or in the Northern Hemisphere, for example.) (b) He cannot say it is the location-general proposition that it's raining *in the place Stephen Neale happens to be* because in many possible states of the world this proposition differs in truth-value from the proposition I expressed when I uttered (20). (There cannot be possible states of the world in which one and the same proposition has two different truth values.) Similarly, it cannot be the location-general proposition that it's raining *in the place the speaker happens to be*. (c) He cannot say it is the location-general proposition that it is raining *somewhere or other* (the proposition that  $\exists x(x \text{ is a location} \cdot \text{it is raining in/at/on } x)$ ) for then the proposition I expressed would be almost trivially true, which it is not. The only circumstances, on such a proposal, in which one could express a false proposition by uttering (20) would be when it's raining nowhere in the universe!<sup>60</sup> (d) He cannot say it is the location-general proposition that it is raining *everywhere* (the proposition that  $\forall x(x \text{ is a location} \supset \text{it is raining in/at/on } x)$ ) for then the proposition I expressed would be almost trivially false, which it is not.

If there is no location-singular proposition that I expressed and no location-general proposition that I expressed, then what proposition did I express, and what are the conditions of its truth, actually and counterfactually? (e) He cannot say it is the proposition that it is

raining simpliciter as *there is no such proposition*, propositions being the sorts of things that are evaluable for truth or falsity on any theory that is engaging the issues. *Without a location (or quantification over locations) no such evaluation is possible.* In summary, there appears no alternative to Perry's position that Reykjavik is an unarticulated constituent of the proposition I expressed. Until we get from the philosopher who rejects Perry's position sensible answer to the question 'what proposition did I express when I uttered (20), and what are the conditions of its truth, actually and counterfactually?' we are perfectly justified in ignoring him.

Lest there be any misunderstanding here, it should be pointed out that Perry's opponent cannot wriggle out here by arguing that the *location* of the rain I am talking about when I utter (20) is no more a constituent of the proposition expressed than its *intensity* or its *temperature*. Suppose of necessity it is true that rain always has an average temperature and an average intensity (gentle, hard, or whatever), and that the rain coming down in Reykjavik right now is 5 degrees Celsius and hard (according to some specified measure). It would still be a mistake to claim that its intensity and temperature are on a *propositional par* with its location when it comes to the proposition I expressed by uttering (20). Whether it is raining hard in Reykjavik or raining gently in Reykjavik, the proposition that *it is raining in Reykjavik* is true. The actual intensity of *no current (falling) rain anywhere* is relevant to the truth or falsity of this proposition; and similarly the actual temperature of *no current (falling) rain anywhere* is relevant to the truth or falsity of this proposition. By stark contrast, the actual *location* of some current (falling) rain *is* relevant: some of it has to be *in Reykjavik*. This asymmetry is striking and reinforced from the other direction. Consider the proposition I express by uttering (21) now:

(21) it's raining hard.

Here the actual intensity of some current rain *is* relevant to the truth or falsity of the proposition I expressed. *But so is the location.*

On a related note, Taylor (2001) points out that the relation a location bears to an utterance of (20) is quite different from the relation a location bears to an utterance of (22):

(22) Laura danced the tango all night last night.

When dancing takes place it must be at a location, even if it is only on an aircraft speeding between Reykjavik and New York. Must the proposition expressed by someone who utters (22) contain an unarticulated constituent, a location without which it makes no sense to ask about truth and falsity? Taylor's response is a resounding 'No':

One can say something fully determinate, something fully truth-evaluable by uttering [(22)] even if context provides no place as the place where the dancing took place. Why does [(22)] differ from [(20)] in this regard?

The answer, I think, has to do with how 'to dance' and 'to rain' relate to the places where rainings and dancings happen. 'To dance' does not mark the place where a dance happens as the undergoer of the dance. The theme or undergoer of a dancing is the dancer herself. The place where a dancing "takes place" is merely the place where the dancer dances. When Laura is dancing in a place, it is not the place that undergoes the dancing. . . . That a dancing must take place somewhere or other is a (mutually known) metaphysical fact about the universe—a fact that supervenes on the nature of dancing and the structure of space-time. But that metaphysical fact is not explicitly represented in the subsyntactic structure of the lexicon. This is not to say that the place where a dancer dances is never of conversational relevance to us. It is merely to say that such conversational relevance as the

location of a dancing enjoys is not a direct consequence of lexically generated requirements on semantic completeness. (2001: 54)

I concur. It matters not a bit whether Mary danced the tango in a swanky club in Buenos Aires, in a dive in Reykjavík, at home in Palo Alto, on a glacier, or in Russian submarine cruising the depths of the Indian Ocean: if she danced the tango all night last night, she danced the tango all night last night. Taylor goes on:

Things are quite otherwise with the verb ‘to rain’. I take the verb itself, and its subsyntactic lexical structure, to be the source of the felt need for the contextual provision of a place or range of places where a raining happens. Facts about the subsyntactic lexical structure of the verb directly entail that nothing fully propositionally determinate has been expressed by an utterance of a sentence like [(20)] unless a place is provided. It is, of course, an interesting and important question just why ‘to rain’ allows its theme to go syntactically unexpressed at the level of sentence-level syntax, despite the fact that the verb demands the contextual specification of that theme. But that is an interesting and difficult *linguistic* question, not an interesting and difficult *philosophical* one. (2001: 54).<sup>61</sup>

I shall say more about Taylor’s discussion later. Right now I want only to stress my general agreement on the matter of the difference between the verbs ‘dance’ and ‘rain’: a use of the latter, and only the latter, demands a particular location (or quantification over locations) in order for a use of a sentence containing it to express a proposition.

There is another issue that needs to be taken up, however. For all that has been said so far, there may be some occasions on which the location of dancing *is* an unarticulated constituent of the proposition expressed by a use of a sentence containing the verb ‘dance’. That could be the case when (23) is used, of course, but this is not what I have in mind:

(23) it rained last night the whole time Laura was dancing the tango.

I might use (23) to express the location-independent proposition that it rained last night wherever it was that Laura danced the tango, the whole time Laura was dancing the tango. (This proposition is true if Laura travelled by fast boat from some point in the Atlantic due North to Reykjavík last night, dancing the tango the whole way, as long as it rained the whole way.) But I might use (23) to express the location-dependent proposition that it rained *in Reykjavík* last night the whole time Laura was dancing the tango, wherever Laura may have been dancing the tango last night Reykjavík time (i.e. GMT). (This proposition is true if Laura travelled by very fast boat last night (GMT) from anywhere on Earth to Reykjavík, dancing the tango the whole way, as long as it rained the whole time in Reykjavík.) Reykjavík is an unarticulated constituent of *that* proposition. And if Laura happened to be dancing the tango *in Reykjavík* all night last night, the location is still an unarticulated constituent of the proposition expressed. But this is an accident as far as verb ‘dances’ is concerned: it has nothing to do with the demands imposed by the meaning of the ‘dance’ (or those imposed by the metaphysics of dancing). *Reykjavík gets into the proposition via the demands imposed by the meaning of the verb ‘rain’.*

Might there not be occasions on which the location of dancing is a *non-accidental* unarticulated constituent of the proposition expressed by a use of a sentence containing the verb ‘dance’, a scenario in which the location of the *dancing* is of such importance to the conversation that a good case could be made for saying that the truth-value of the proposition expressed is sensitive to the location of the dancing? Construction of a convincing example is not easy. Taylor is very cautious here, saying only that “such conversational relevance as the location of a dancing enjoys is not a direct consequence of lexically generated requirements on

semantic completeness.” (2001: 54). In the absence of a convincing example, I am strongly inclined to stick my neck out here and say that there are *no* scenarios of the sort I just described: if a location of a dancing is an unarticulated constituent of the proposition expressed by a use of a sentence containing the verb ‘dance’, this is always accidental, the location getting into the proposition expressed by virtue of something *other* than the dancing.<sup>62</sup> To explain why I say this, I want to look at a purported counter-example I raised earlier involving the verb ‘pour’.

On the relevant usage, and in the crucial respect, ‘pour’ is no different from ‘dance’; but its use as a pseudo-weather verb reveals some important points. In the simplest cases, it looks as if no unarticulated location is a constituent of the proposition I express by uttering (24):

(24) I poured the tea yesterday.

If Ósk and I take turns pouring afternoon tea, wherever we happen to be, and if we take afternoon tea just once each day, I may convey to her that it is her turn today by uttering (24). The *location* of my tea-pouring yesterday does *not* seem to be an unarticulated constituent of the proposition I express: that proposition is true if we were in our favourite café when I poured our tea, but equally if we were at Sindri’s house, or in Russian submarine cruising the depths of the Indian Ocean watching Mary dance the tango. Of course Ósk may well try to recall where we were yesterday afternoon at around 4:00PM in order to satisfy herself that it is really her turn to pour, but *that* is not the issue. So far, so good, then: the mere fact that the conversational participants may home in on a particular location when one of them has uttered (24) is not sufficient for making that location a constituent of the proposition expressed.

As noted earlier, there might be contexts in which the location is an unarticulated constituent. If Ósk and I take tea *twice* everyday, once at a friend’s house outside Reykjavík, and once in Reykjavík at our favourite café, and if it is only in the Reykjavík café that we ritually alternate the pouring, could I not use (24) to express the proposition that I poured the tea *in Reykjavík* yesterday? (Or, perhaps, the proposition that I poured the tea *in this particular café in Reykjavík* yesterday?) If so, then wouldn’t Reykjavík would be an unarticulated constituent of the proposition I express? And given how easy it was to construct this scenario for an utterance of (24), in principle couldn’t we construct an analogous scenario for an utterance of Taylor’s (22), where the verb is ‘dance’ rather than ‘pour’?

We need to exercise caution. It is far from clear that my use of the verb ‘pour’ is directly implicated in the presence of an unarticulated location in the modified scenario involving Ósk and the tea-pouring. The culprit is surely my use of the *incomplete description* ‘the tea’. When I utter (24) in the unmodified scenario, I was using ‘the tea’ in the sense of something like ‘the tea we drank together yesterday’. In the modified scenario I was using it in the sense of ‘the tea we drank together *in Reykjavík* yesterday’ (or, if we are in the Reykjavík café at the time, ‘the tea we drank together *here* yesterday’, for example). In summary, the presence of the unarticulated location appears to have nothing to do with the verb ‘pour’ itself, or with the metaphysical fact that tea-pourings takes place at locations. And it is my contention that any attempt to cause trouble for examples involving the use of the verb ‘dance’ will actually involve smuggling in an unarticulated constituent in a similar way. In summary, I think Taylor is absolutely right about ‘dance’, and right to see it as contrasting with ‘rain’.

There is a residual question involving ‘pour’. Do we have the same verb in (the following)?

(25) it’s pouring now [said in connection with the weather]



- (26) it's pouring well now [said in connection with a teapot whose spout has been repaired]  
 (27) Ósk's pouring well [said in connection with Ósk's tea-pouring].

I think we do. Unlike 'rain', 'pour' is not really a weather verb. It's basically an action verb, and the way it is used in (25) and (26) is surely derived from its use in sentences like (27)—which is not to say that one might first learn its use in, say, (25). The situation is roughly inverted with 'rain', its use in (27') and (26') derived from its use in sentences like (25'):

- (25') It's raining now [said in connection with the weather]  
 (26') It's raining down his face [said in connection with the blood from a cut above someone's eye]  
 (27') Ósk's raining tears [said in connection with her crying].

'Rain' is a genuine weather verb, which is why its use demands a location (or quantification over locations).

The considerations just adduced suggest that Taylor and I may be disagreeing with Perry on one point, or at least that we are describing the presence of the unarticulated constituent in the proposition expressed by an utterance of (25') in a way that is more linguistic than any description Perry might be willing to use here. Perry suggests that since the use of no component of (25') stands for Reykjavík when I use the sentence to express the proposition that it's raining now in Reykjavík, it must be my use of *the sentence as a whole* that is about Reykjavík. Fair enough, but I agree with Taylor that the *presence* of a location in that proposition is something demanded by a particular *component* of the sentence, viz. the verb 'rain'. It is mandated by the meaning of the verb 'rain'. It is as much a metaphysical fact about dancings that they take place at locations as it is a metaphysical fact about rainings that they do. So the simplest metaphysical considerations alone will not give us all we need to explain the existence of an unarticulated location in a rain statement. At the very least we need something like Taylor's idea of a *theme* or *undergoer*. Does this mean making a *syntactic* claim? That is something I shall take up later.

#### 9. ABOUT AND CONCERNS

Consider my utterances of (1) and (2) again:

- (1) Reykjavík has more than 100,000 inhabitants  
 (2) every capital city has more than 100,000 inhabitants.

The proposition I express by uttering the singular sentence (1) is location-singular. The one I express by uttering the general (quantified) sentence (2) is location-general. But one might argue that there is a respect in which the proposition I express by uttering (2) is, nonetheless, location-*dependent*. Suppose I am using (2) to make a claim about capital cities *in Europe*, not capitals in the whole world, or capital cities, if there are such, on Mars or elsewhere in the universe.<sup>63</sup> We have a classic case here of what is often called "incompleteness", a phenomenon pervasive in the interpretation of quantified phrases.<sup>64</sup> If our conversation has been about European cities and my intention in uttering (2) is to be understood as claiming that every capital city in Europe has more than 100,000 inhabitants, then it is tempting to say that Europe is a constituent of the proposition I expressed. If our conversation has been about cities more generally and my intention in uttering (2) is to be understood as claiming that every capital city on the planet has more than 100,000 inhabitants (and I have no intention to

be understood as making a claim about capital cities, if there are such, on other planets) it might be tempting to say that that the Earth is a constituent of the proposition I expressed.

At least the temptation might be there if the conversational participants have conceptions of other planets and so on.<sup>65</sup> We are at the heart, here, of what seems to me one of the most pressing and ill-understood issues in the philosophy of language and mind: the richness of propositional content. How do we tell just how much stuff gets into the contents of the thoughts we entertain and express? I do not pretend to have an answer to this question, indeed it seems to me currently intractable. What is certain, however, is that it is something that has bothered Perry for a long time. For there is a rather different approach one might take to uses of (2), one that Perry (1986, 2001), and also Barwise and Perry (1983), have floated in connection with the narrowing of domains and horizons. To use Perry's terminology, the statement I make when I utter (2) might be said to *concern*, say, Europe, even if it is not *about* Europe.<sup>66</sup> Abstracting from temporal matters again, Perry's idea is that a statement is *about* a location if the proposition expressed contains that location as a constituent. By contrast, a statement *concerns* a location if the proposition expressed does not contain that location but is merely evaluated for truth or falsity *with respect to it* (rather than with respect to the Great Location, as it were). Some serious issues must be confronted if this proposal is to gain traction because it appears to involve what is sometimes called a *relativized* conception of truth: the statement that every capital city has more than 100,000 inhabitants is not itself true or false but true relative to some locations and false relative to others.

Perry's *about-concerns* distinction corresponds closely to the *explicit-implicit* distinction I talked about in *Descriptions*, and it will be useful to examine the distinctions together.<sup>67</sup> When confronted with the interpretation of utterances of sentences containing incomplete quantifier expressions such as 'every city', 'no capital city', or 'the table', philosophers tend to say one of two things. (i) "There's always an *implicit background restriction* on the domain over which a quantifier expression ranges" is one old reply. (ii) "The utterance is *elliptical* for an utterance of some richer or more *explicit* sentence the speaker could readily supply" is another. Call these the *implicit* and *explicit* replies, respectively. Incompleteness seems to concern slippage between language and the world, so dealing with it would seem to involve either tinkering with language, or else tinkering with the world. When we tinker with *language* we do something about the quantifier's *matrix*, which we might represent abstractly as  $\phi(x)$  when the nominal in question is  $\phi$  (e.g. 'capital city'). When we tinker with the *world*, we do something about the *objects* that (potentially) satisfy the matrix. If we tinker with  $\phi(x)$  itself we are adopting an 'explicit' approach to the problem; if we tinker with the objects potentially satisfying it we are adopting an 'implicit' approach.

The distinction between the world-tinkering, implicit approach and the language-tinkering, explicit approach corresponds to a difference in focus with respect to the parts of a DP. Suppose 'every capital city' has the structure we can rough out thus:

$$(3) \quad [_{DP}[_D \text{every}][_{NP}[_A \text{capital}][_N \text{city}]]].$$

The determiner D 'every' is the head of the whole DP. The implicit response purports to explain how we get away with using incomplete DPs by focusing on how the head node, D, or its projection, DP, is to be interpreted. If the quantificational structure of 'every capital city is  $\psi$ ' is represented in our formal language *RQ* as follows,

$$(4) \quad [every\ x:\ capital\ city(x)]\ \psi(x)$$

then there are *two* quantifiers to look at, the unrestricted quantifier *every x*, corresponding to the D node, and the restricted quantifier [*every x: capital-city x*], corresponding to the DP node. The implicit, world-tinkering, approach explains incomplete usage by limiting the number of objects potentially satisfying *capital-city(x)*; and the fact that there are two quantifiers to consider means there are (at least) *two* ways of effecting the required delimitation. Let *r* be some subset of the objects in the domain of quantification, for example the things on Earth (*r* for ‘restricted’). In *RQ* we can represent the two ways of delimiting the domain as follows, subscripting ‘*r*’ onto the quantifier whose domain is to be delimited:

- (4') [*every x<sub>r</sub>: capital-city x*] $\psi(x)$   
 (‘*every x* (in *r*) such that *x* is a capital-city is such that  $\psi(x)$ ’)  
 (4'') [*every x: capital-city x*]<sub>*r*</sub> $\psi(x)$   
 (‘*every x* such that *x* is a capital-city (in *r*) is such that  $\psi(x)$ ’)

I prefer a simple ‘*r*’ rather than the variable-containing ‘*x* $\in$ *r*’ to avoid the suggestion that in (4') and (4'') the descriptive content itself is modified, as it is in, say, (4'''):

- (4''') [*every x: capital-city(x) • x* $\in$ *r*]  
 (‘*every x* such that *x* is a capital-city and *x* $\in$ *r* is such that  $\psi(x)$ ’).

For as I said in *Descriptions*, a central tenet of the implicit approach is that it “leaves the descriptive content untouched” (1990: 95). In (4'), the *unrestricted* quantifier *every x* ranges over the things in *r*; in (4'') the *restricted* quantifier [*every x: capital-city (x)*] ranges over the things in *r*. If *r* is a proper subset of the total domain over which quantifiers range, then the use of (2) to say something that *concerns* Earth (without being *about* Earth) can, in principle, be explained.

In effect, the implicit-concerns approach yields a relativized notion of truth. For it would seem that the proposition expressed by someone using (4) is true or false only relative to some domain or other. And this seems to do serious violence to the traditional conception of proposition. Propositions are absolute bearers of truth values, the things we express using declarative sentences on given occasions, the contents of our statements and beliefs. Standardly, the truth-value of a proposition does not vary with time or place. But on the implicit approach, thus described, the same proposition may have different truth values relative to different locations. The proposition someone expresses by uttering (2) right now is false relative to Europe, or to the Earth; relative to some other planet it may be true; relative to one group of countries on Earth (those making up the UK, for example), it might be true; relative to another (the OPEC countries, for example), it might be false (I haven't checked). And so on. This certainly seems like a radical proposal, one involving a significant departure from the usual way of going about business. For on the implicit-concerns approach, propositions themselves—or at least some of them—are not true or false *absolutely*.<sup>68</sup>

No *syntactic* thesis is implied by the implicit-concerns approach. It is certainly compatible with the thesis that the English DP ‘every capital city’ contains an aponic expression corresponding roughly to the subscript *r* in our formal language, just as it is compatible with the syntactic thesis that *what you hear is what you get*. That is, the postulation of an aponic in ‘every capital city’ corresponding to *r* in (4') or (4'') is no part of the implicit approach itself, it is, rather, a particular *syntactic* proposal for *implementing* it, one that might be motivated or rejected on *syntactic* grounds.

An interesting version of the implicit approach was provided by Barwise and Perry (1983). Quite generally, they suggest, statements are evaluated for truth or falsity not in connection with the whole world but in connection with *parts* of it, which they call *situations*.<sup>69</sup> To simplify matters in a way that does not bear on present concerns in any threatening way, let us continue prescinding from time and think of situations as just regions of space, locations of whatever size. Drawing upon Barwise and Cooper's (1981) work on generalized quantifiers, Barwise and Perry define a persistent statement as one whose truth persists as the situation in connection with which evaluation takes place is enlarged. On this account, an utterance of (5) is persistent:

(5) some capital city has more than 100,000 inhabitants.

Not so an utterance of (2):

(2) every capital city has more than 100,000 inhabitants.

The idea Barwise and Perry want us to entertain is that the statement someone makes by uttering (2) could be *true* in connection with the UK, but *false* in connection with Europe, or the Earth, or the entire universe. Any *particular* utterance of (2) is made *in* some situation *S* and intended to be evaluated *at* some particular situation *S'*, which need not be identical to *S*, and which may be smaller than the entire universe. And it is this fact, or so it is suggested, that explains how distinct utterances of (2) work.<sup>70</sup>

Before looking briefly at a problem for the implicit-concerns approach, let us turn to the explicit-about approach. The explicit approach leaves the world alone. It purports to explain the felicitous use of (2) by looking not at the nodes occupied by quantifiers in 'every capital city' but at the node occupied by the nominal 'city'. The basic idea is explicitly *modal*: the utterance of the nominal is elliptical for an utterance of at least one richer nominal the speaker *could have* used and *could* produce if asked to be more explicit. Utterances of (2) are understood as if they were utterances of things like the following:

(2') every capital city *in the UK* has more than 100,000 inhabitants

(2'') every capital city *in Europe* has more than 100,000 inhabitants

(2''') every capital city *on Earth* has more than 100,000 inhabitants.

That is, the proposition expressed by a use of (2) is actually *about* a place and will contain it as an unarticulated constituent.<sup>71</sup>

Just as there is no *syntactic* thesis implied by the implicit/concerns response, so none is implied by the about/explicit response. There is no implication, for example, that expressions are transformationally deleted between levels of grammatical representation in a Chomskyan grammar—indeed, on standard assumptions there *could not be* such a syntactic thesis because such deletions would violate the principle of *recoverability*, which requires deleted elements to be recoverable from linguistic context.<sup>72</sup> Like the implicit approach, the explicit approach is meant only to describe how speakers intend their utterances to be *interpreted* on particular occasions and to describe the interpretations hearers do seem to get. It involves no *cognitive* claim about the mechanisms whereby hearers manage to *come up with* particular interpretations on particular occasions: that is something for a theory of the pragmatic, inferential processes involved in utterance interpretation to explain.

So what are we to say about a typical utterance of (2)? Will it be *about* a location or will it just *concern* one? Can one utterance of (2) be about a location whilst another merely concerns one? These are extraordinarily difficult questions. Probably there is not enough in Perry's

discussions of locations, persistence, intentions, and the about/concerns distinction to pin on him anything too definite here, and probably this is a good thing as every move here is fraught with complications. But the general picture I get from isolated remarks and from recollections of discussions with him when I was a student is roughly this. To the extent that some particular location forms part of the content of the communicative intention behind an utterance of (2), we should construe the location as a constituent of the proposition expressed. Of course this only pushes the question back: when does a location form part of the content of the communicative intention behind an utterance of (2)? Perhaps all we can do is proceed with cases for now. If I am being questioned by Martians about the different countries on Earth, for example, I might use (2) to express the (false) proposition that every capital city on Earth has more than 100,000 inhabitants. Now suppose I tell them about continents and the like and try to explain what Europe is. When they explicitly ask me questions about Europe and its cities, I might use (2) to express the (false) proposition that every capital city *in Europe* has more than 100,000 inhabitants. In these scenarios it does not seem particularly far-fetched to say that Earth and Europe, respectively, are unarticulated constituents of the propositions I express. Similarly, when I return to Earth and face questions about my trip to Mars, I might report on the twenty-three Martian countries using (2) to express the proposition that every Martian capital has more than 100,000 inhabitants. Similarly someone might use (2) to make a bold conjecture about the whole universe; and in such a case I suppose the whole universe would be a constituent of the proposition expressed. (Would this be that different from having *no* unarticulated location as a constituent?)

But what of more down-to-Earth cases? Can't we imagine very ordinary situations in which speakers use (2) with no concept of Earth playing any part in the intention behind the utterance? Would the average speaker using (2) *construe himself* as implicitly referring to Earth? What about someone who has an ancient conception of heavenly bodies and knows nothing about the Earth being one of a number of planets? What should *we* as theorists should say about the propositions *we* ourselves express in down-to-Earth cases? These are difficult questions and I know of no easy answers.

I am sceptical about a *unitary* or *general* concerns/implicit approach, because of examples like the following:<sup>73</sup>

- (6) every country sent a relief team to every island.
- (7) the Russian voted for the Russian.

Suppose we have been talking about Europe's response to a hurricane that has hit the five islands making up the Republic of Taora in the South Pacific. I might utter (6) to express the proposition that every country *in Europe* sent a relief team to every island *of Taora*. The explicit approach handles this well: the proposition expressed is *about* Europe and *about* Taora, and both are unarticulated constituents of that proposition. But the implicit approach has to overcome an obstacle. There is no situation or part of the world that my use of (6) *concerns*, no situation or part of the world with respect to which the proposition (or propositional function) I express using (6) is true. Europe won't do as it contains hundreds of islands (I wasn't claiming, in part, that every country in Europe sent a relief team to Capri, Guernsey, and Texel). Nor will any particular portion of the South Pacific containing Taora, for I was talking about *European* countries. We need a situation that contains at least Europe and Taora, but once we have that we will have a situation that is too big (even if we permit it to be a discontinuous situation, a fusion of the Europe situation and the Taora situation, and

nothing else). It's as if we need one situation while we focus on 'every country' and a completely different one when we focus on 'every island', changing situation in mid-utterance, as it were. But that idea makes no sense given the way I have described the implicit approach, for its defining feature is the idea of evaluating one entity with respect to another; more precisely it is the idea of evaluating a proposition (or propositional function) for truth or falsity not with respect to the entire world but with respect to just some part of it.

Why not say that we evaluate the proposition for truth or falsity with respect to a *pair* of situations, ⟨the Europe situation, the Taora situation⟩? People are quick to say this because there is no *technical* problem with evaluating one thing with respect to a pair of things. (We've all read our Tarski.) But what does that even *mean* in the present context? A consistent formalism does not answer any philosophical questions about interpretation.<sup>74</sup> What would be the interpretation of my utterance of (6') for example?

(6') every country sent every relief team to every island

On the explicit approach, I express the proposition that every country *in Europe* sent every relief team *it sent to Taora* to every island *of Taora*. On the implicit approach, is the proposition (or propositional function) that every country sent every relief team to every island evaluated for truth or falsity with respect to a *triple* of situations, ⟨the Europe situation, the relief teams sent to Taora by European nations situation, the Taora situation⟩? No, this cannot be quite right: relief teams sent to Taora by European nations need to be relativized to individual nations that sent them, so the second of the situations in the triple must actually be parameterized to the individual nations in the first situation in the triple. Something like that, at any rate. No doubt with enough formal machinery one could concoct something that would have the right mathematical features, but an account of the interpretation process based on this is surely over-intellectualized, and the initial attraction of the implicit approach has now gone up in smoke. The original and very intuitive idea of evaluating for truth or falsity at some small portion of the world (as if checking whether one has the ingredients for a cake by restricting one's search for butter, milk, eggs, and flour to the contents of a single kitchen (rather than searching in the world at large)) has metamorphosed into the highly unintuitive idea of evaluating for truth and falsity at some rather odd concoction of various parts of the world, some parameterized to others (as if checking whether one has the ingredients for a cake by restricting one's search to the contents of one kitchen for milk, the contents of another elsewhere in town for eggs, and the contents of kitchens recently visited by people who ate any part of any chicken that laid any of the eggs taken from the second kitchen for butter and flour). How could such an idea possibly form part of theory of interpretation in any interesting sense? I'm inclined to think that situation sculpting of this sort will yield no remotely useful way of dealing with (6) and (6').

Things are not much better if we see things *dynamically*. Every time a nominal is encountered, a new situation is invoked and that nominal is evaluated at that situation. But again, relativization of situations is going to be required and the over-intellectualization of the interpretation process rears its head. The idea of a background situation shifting with every new nominal that is uttered strikes me as unlikely to help us understand anything about utterance interpretation.<sup>75</sup>

The situation with (7) is similar. Suppose we use it to explain how one of the boxing judges voted in a boxing match between a Swede and a Russian. There is no situation containing exactly one Russian and two distinct Russians. So again, two situations will be needed, one

the situation containing judges for this boxing match, the other containing the boxers in it. Perhaps this example demonstrates the attraction of a combined implicit-explicit approach: the proposition I express is that the Russian judge voted for the Russian boxer, and this proposition *concerns* a particular boxing match. On the combined approach, every utterance is evaluated against an implicit background situation, meaning there is less explicit work to be done.

When you initiate a conversation, there is some onus on you to make sure enough of a background situation is either in place or quickly inferable to get things moving. You call me on the telephone and after announcing your identity, you say, “Are you going to Ragga’s party tonight?” not “Are you going to it tonight?” A background has now been created. In an effort to persuade me to come along you say “It will be really good. Steindór is going to sing.” Now you use “it” instead of “Ragga’s party.” And I know that you mean Steindór is going to sing *there*. The real issue between the implicit and explicit approaches concerns how much content gets into our thoughts and how much is, somehow or other, “left out”. I suspect little remains for philosophers and linguists to do in this domain. The interesting question is one for cognitive psychology: how much content makes it into my thoughts when I speak and comprehend, and what do I evaluate the truth and falsity of my thoughts against? The idea of the background situation shifting with every new nominal that is uttered strikes me as pretty ridiculous, but perhaps cognitive psychology will prove me wrong. So for what it’s worth, I shall continue working with the explicit approach, perhaps combined with the implicit approach (drawing the line in each case where it strikes me as plausible) and wait until cognitive psychology tells me how much of the postulated explicit content should be explained away implicitly.

Let us turn to (8) and (9):

- (8) it rained last week in Reykjavík
- (9) it rained last week everywhere I went.

The location-singular proposition I express using (8) is location-dependent, indeed *Reykjavík*-dependent. No problem there. Now suppose I drove from Reykjavík to Akureyri last week and took no other trip, and suppose it rained the whole way (and also rained when I was stationary in both Reykjavík and Akureyri). The proposition I express by uttering (9) is location-*general*: if I had driven only from Reykjavík to Höfn instead, or only from Cairo to Alexandria for that matter, and it had rained the whole way, *the proposition I just expressed by uttering (9) would still be true*. Whilst the location-singular proposition I expressed by uttering (8) is location-dependent, indeed Reykjavík-dependent, the location-general proposition I express by uttering (9) is not: there is no particular location *x* (for example, Reykjavík) such that the proposition’s truth or falsity in actual and counterfactual situations depends upon how things are with *x*.

Now imagine a situation in which a prolonged drought hits western North America. (I am here adapting an example due to Récanati (2001) — to use *against* him!) The situation is particularly dire on the island of Recanto (a republic located a few hundred miles off the coast of northern California). Rain has become so very rare and important in Recanto that rain detectors have been disposed all over its two hundred square miles (the island is roughly oval-shaped, about twenty-four miles long and twelve miles wide). Each detector triggers an alarm bell at the meteorological office in San Juan (the capital) when it detects rain. There is a single bell, and the location of the rain detector that has been triggered is indicated by a light on a

board. After months of drought, the bell eventually rings. Hearing it, the weatherman on duty, who is in an adjacent room at the time and cannot see the board, exclaims,

(10) it's raining.

It would be wrong to say the proposition the weatherman expressed is true if, and only if, it is raining (at the time of his utterance) in some place or other, wrong to say he expressed a location-independent proposition. Why? Because he expressed a *Recanto*-dependent proposition, one that is true if, and only if, it is raining somewhere or other *on Recanto*. Rain in Reykjavik is simply not relevant.

Following instructions, the weatherman calls the President of Recanto on a hot line as soon as he hears the bell. "Mr President," he says excitedly, "I have some good news: it's raining." The President replies that this is indeed good news and asks the weatherman for more information:

(11) where is it raining?

Now the President's use of (11) does *not* indicate that he did not fully grasp the proposition the weatherman expressed. The weatherman expressed the *Recanto*-dependent proposition that it is raining *somewhere or other on Recanto*, and this proposition is the one the President grasped before asking his question. Similarly, when the weatherman replies, "If you will excuse me for just a moment, Mr President, I will go and find out," he is not indicating that he does not know which proposition he himself expressed earlier, for that was the proposition that it is raining *somewhere or other on Recanto*. What the President is seeking is a useful specification of a *smaller location*, a smaller part of *Recanto* within which the rain is falling, and reasonable answers might be "on the north coast" or "out in Punta Rosa". The proposition the weatherman first expressed when he uttered (10) contains an unarticulated constituent, *Recanto*; and the proposition he expresses when he utters (12),

(12) it's raining out in Punta Rosa

contains the "smaller" constituent, *Punta Rosa*.

#### 10. EXISTENTIALISM AND NIHILISM

The *Recanto* example is a variation of one used by Récanati (2001) to draw quite the *opposite* conclusion from the one I have just drawn. Récanati holds that under certain special circumstances someone can use (1)

(1) it's raining

to express a location-independent proposition, a proposition that does *not* contain an unarticulated location. Is this because he thinks it can be used to express the location-*general* proposition that it's raining *somewhere or other*? Or because he thinks it can be used to express a proposition that is neither location-*singular* nor location-*general*? I think Récanati has in mind the former, but either way his example is unconvincing.

Let me put to one side for a moment what I take to be two hopeless positions. *Truth-conditional existentialism* is the position that a use of (1) always expresses the location-*general* proposition that it's raining *somewhere or other*. By contrast, *truth-conditional nihilism* is the position that a use of (1) always expresses a proposition that is neither location-*singular* nor location-*general*. (Existentialism seems plain false to me, and nihilism plain confused. (I give my reasons later.) There may well be people who hold one or the other of



existentialism and nihilism (or some conflation of both), but Récanati's position seems to be neither. Récanati does not argue that the proposition a speaker expresses by uttering (1) *never* contains an unarticulated location. Indeed, it seems to be his point that in the ordinary sorts of cases discussed in the literature the proposition expressed *does* contain such a location. But what he is doing is *engineering a highly out-of-the-ordinary case* that has the appearance (to him, at least) of not involving an unarticulated location. In summary, he seems to want to allow that *some* uses of (1) express location-singular propositions whilst others express location-general propositions. And to the latter extent, he has some affinity to the truth-conditional existentialist, who maintains that the proposition expressed is *always* location-general.

It is important not to tangle four quite separate distinctions here, (i) the distinction between *singular* and *general*, which has application in the realm of both sentences and propositions, (ii) the distinction between *singular* and *dependent* in the realm of propositions, (iii) the linguistic distinction between *arguments* and *adjuncts* (is 'here' an argument or adjunct in 'it's raining here?'), and (iv) the distinction between an argument *position* and an argument *rôle*, the former a linguistic notion, the latter a metaphysical one.

Here is Récanati's example:

Perry says that the contextual provision of a place is semantically mandatory for interpreting a weather statement like 'It's raining'. . . . But must we really accept Perry's claim, thus construed? Can we not imagine a context in which 'It is raining' would be evaluable even if no particular place were contextually singled out? I have no difficulty imagining such a context. I can imagine a situation in which rain has become extremely rare and important, and rain detectors have been disposed all over the territory (whatever the territory—possibly the whole Earth). In the imagined scenario, each detector triggers an alarm bell in the Monitoring Room when it detects rain. There is a single bell; the location of the triggering detector is indicated by a light on a board in the Monitoring Room. After weeks of total drought, the bell eventually rings in the Monitoring Room. Hearing it, the weatherman on duty in the adjacent room shouts: 'It's raining!' His utterance is true, iff it is raining (at the time of utterance) in *some place or other* [emphasis added, SN] (2001: 317).

Récanati's words "some place or other" suggest he agrees with the existentialist on the truth conditions of the weatherman's use of (1): the proposition the weatherman expresses is location-independent, it contains no unarticulated location because it is *location-general*.<sup>76</sup> But surely it is *false* that the weatherman's utterance is true if, and only if, it is raining, at the time of utterance, "some place or other." Raining on one of Jupiter's moons? On a planet orbiting some distant star? On a space station so gigantic and diverse that it has developed its own weather system with evaporation, cloud, and precipitation? The weatherman's utterance is true, rather, if, and only if, it is raining somewhere or other *on Earth*, or whatever territory is under consideration, and to that extent it is *location-dependent* even if it is not location-singular. A location *is* required, and without it there is no proposition to be evaluated for truth or falsity. In its crucial respects Récanati's example seems no different from our Recanto one: Recanto is a location that is part of many larger locations (North America, the northern hemisphere, Earth, etc.); and so is the Earth (being part of the solar system, our galaxy, etc.).<sup>77</sup> Second, notice that Récanati's claim cannot actually be a claim about unarticulated *constituents*: for by Récanati's own lights the proposition the weatherman expresses by uttering (1) *does* contain unarticulated constituents, albeit unarticulated *properties* rather than an unarticulated location. The proposition the weatherman expresses is not, on his account, the

one he would have expressed had he uttered (1'), but (according to Récanati's own words) the proposition he would have expressed had he uttered (1''):

- (1') it's raining on Earth
- (1'') it's raining some place or other.

Now the relationship (1'') bears to (1') is none other than the relationship an existentially quantified sentence stands to a singular instance, the relationship (2'') bears to (2'):

- (2') Perry sneezed
- (2'') Somebody or other sneezed.

If I utter (2'), I express a singular proposition about Perry, a proposition that has Perry himself and the property of sneezing as constituents. Now I take it no-one would insist that the proposition I express by uttering (2'') contains only *one* constituent, the property of sneezing, the proposition containing no constituents whatsoever corresponding to 'somebody or other' (or any of its parts). The transition from the proposition expressed by my use of (2') to the one expressed by my use of its existential generalization (2'') is a transition from a singular proposition to a general one, not a transition from a proposition that contains two constituents to one that contains only one. In a familiar notation, it is a transition from (3') to (3''):

- (3') ⟨PERRY, SNEEZED⟩
- (3'') ⟨⟨SOME, PERSON⟩, SNEEZED⟩.

The propositional situation is no different with the transition from the proposition expressed by my use of (1') to the one expressed by my use of its existential generalization (1''): it is a transition from a singular proposition to a general one, not a transition from a proposition that contains two constituents to one that contains only one:

- (4') ⟨EARTH, RAINING⟩
- (4'') ⟨⟨SOME, LOCATION⟩, RAINING⟩.

Récanati's claim is that although one *can* (and usually *does*) use (1) to express a location-singular proposition, in the scenario envisaged the weatherman is using (1) to express the location-general proposition (4''). But the truth or falsity of his claim has *no bearing on the matter of whether or not there are unarticulated constituents* of the propositions expressed by uses of sentences containing the verb 'rain'. No-one, certainly not Perry, is going to deny that one can express *location-general* propositions using sentences containing the verb 'rain' any more than he or she are going to deny that one can express *general* propositions using sentences containing the verb 'sneeze'. However you look at it, (4') and (4'') *both* contain unarticulated constituents relative to uses of (1). That is, however you look at it, Taylor is vindicated: the presence of a location or range of locations in the proposition expressed by a use of (1) is something demanded by a particular *component* of the sentence, viz. the verb 'rain', which expresses a relation with two argument *rôles*, one for time, the other for location, whether singular or general. (It is still *sub judice*, however, whether there is a level of syntactic representation (LF, say) at which 'rain' has two argument *positions* one for some type of temporal expression, the other for some form of locative; and *sub judice* whether 'here' and 'in Reykjavík' occupy argument positions when appended to 'it's raining'.) The fact that the latter rôle may be filled by something other than a *particular* location (for example, in (4'') the proposition that it's raining *somewhere or other*) is neither more nor less interesting than the fact that one of the two argument rôles of the relation expressed by

‘sneeze’ may be filled by something other than a *particular* person (for example in (3’)), the proposition that *somebody or other* sneezed).

The remaining question, then, is whether the weatherman’s use of (1) in Récanati’s example really *does* express the fully general, wholly existential proposition (4’). Surely not, for then the weatherman’s utterance would be true as long as rain is coming down somewhere or other in the universe, and false only if no rain is coming down anywhere in the universe. So Récanati’s position seems incorrect.<sup>78</sup>

If the weatherman’s use of (1) does not express (4’), then truth-conditional existentialism is false. What about truth-conditional nihilism? I have encountered nihilist sentiments enough in talks and lectures by people who seem to be professing existentialism that something needs to be said about it. The nihilist idea is that a use of (1) expresses a proposition that is *neither location-singular nor location-general*, the proposition that it is raining *punkt*. This view is truly hopeless. A proposition, by our ground rules, is something that is true or false. The proposition that it is raining (now) in Reykjavík has a truth-value, false as it happens. And the proposition that it is raining (now) somewhere or other on Earth has a truth-value, true presumably. What about the proposition that it is raining (now) *punkt*? Is it true or false? The reason we don’t answer ‘true’ or ‘false’ is that the only way we can construe the question as worthy of one of these answers is if we construe it not as a *punkt* question at all, but as a question about the proposition that it is raining *somewhere in particular*, Reykjavík, for example, or as a question about the proposition that it is raining *somewhere or other*, on Earth for example. The question whether it is raining (now) *punkt* has no answer because it is not a genuine question.

It will not do to just trot out the following alleged “T-sentence” in defence of the *it’s raining punkt* thesis, or any other thesis.<sup>79</sup>

(5) ‘it’s raining’ is true iff it’s raining.

For one thing, (5) does *not* qualify as a T-sentence: it does not specify the truth conditions of *any* utterance of (1), including, in particular, my utterance of (1) in Reykjavík at noon on Nov 5, 2002, the truth conditions of which are that its raining in Reykjavík at noon on Nov 5, 2002. Claims to the contrary are confused. Only *relative to a location* does it even make sense to consider ‘its raining’ having either a truth *value* or a truth *condition*.<sup>80</sup> The problem iterates, of course. Since the right-hand side of (5) does not have a truth condition, neither does (5) as a whole, and so it fails to specify the proposition I express when I utter (1) right now intending to communicate that it’s raining in Reykjavík.<sup>81</sup> In a nutshell, (5) is about as useless a “T-sentence” as the following:

(6) ‘Mike is foreign’ is true iff Mike is foreign

(7) ‘Mike is ready’ is true iff Mike is ready

(8) ‘Mike’s horse is grey’ is true iff Mike’s horse is grey.

Wheeling out (5)-(8) with a view to repudiating unarticulated constituents of the proposition expressed by uses of the quoted sentences betrays confusions about what T-sentences and truth conditions are.

Suppose a purported truth-theorist were to say to us that (5) is a “general T-sentence” which can be instantiated in various ways: every utterance is made by a speaker *s*, at a time *t* and location, *l*, and an understanding of the “general T-sentence” (5) requires taking this basic fact into consideration. (5) is to be understood as

(5') 'it's raining'  $\langle s, t, l \rangle$  is true iff it's raining at  $t$ , in  $l$ .

But (5') is not a T-sentence either: it is merely a universally quantified schema that individual T-sentences may instantiate. For example, (9) instantiates it:

(9) 'it's raining'  $\langle \text{Stephen Neale, noon, Nov 5 2002, Reykjavik} \rangle$  is true iff it's raining at noon, Nov 5, 2002, in Reykjavik.

Whatever its faults, (9) is at least a T-sentence, at least within certain systems that take sentences-relative-to-assignments to be bearers of truth and falsity. But it's not a *true* T-sentence because I could utter (1) at noon on November 5, 2002 in Reykjavik to say something that is true if, and only if, it's raining in *Genoa* at that time. The location of the rain relevant to the truth or falsity of such an utterance of (1) would not be the location of the utterance, so an additional parameter would need to be added to the schema (5') of which (9) is an instance, call it  $l'$ . The value of  $l'$  on a given occasion is not a function of  $l$ , though it may often be  $l$ .

Using (9) to specify the proposition I express when uttering (1) right now intending to communicate that it's raining in Reykjavik just concedes the game to Perry, for within the aforementioned framework the actual specification of the proposition in question is surely given by the right-hand side of (6), which makes it very clear that the proposition in question is the Reykjavik-dependent proposition that it's raining *in Reykjavik*.<sup>82</sup>

At some point we shall need to ask whether I *referred* to Reykjavik when I uttered (1). Certainly I used no (overt) expression to do so. But perhaps that doesn't answer our question. Let us put unarticulated constituents to one side for a while and focus on referring in seemingly simpler cases.

## 11. ANCHORING

Many philosophers write as if (or even argue that) understanding what a speaker  $S$  said on a given occasion by uttering a sentence  $X$  with its conventional meaning is a matter determined by the meaning of that sentence and a 'context', in a sense of this frequently invoked word that is meant to make it more than simply a label for whatever it is that 'bridges the gap' between the meaning of  $X$  and what  $S$  said by uttering  $X$  on that occasion. For example, it is frequently claimed that all one needs to bridge the gap is some sort of formal object, an 'index' or 'context' in the form of an ordered  $n$ -tuple that secures the references of a few annoying 'indexical' pronouns ('I', 'you', and 'he', for example) and one or two other 'indexical' words that have a somewhat pronominal nature ('here' and 'now', for example).<sup>83</sup>

Whilst formal contexts may have a useful *methodological* rôle from time to time, they are strictly irrelevant to a proper theory of utterance interpretation. For various semantic and syntactic purposes, it is often desirable—if not mandatory—to abstract or idealize away from facts to do with particular speech situations—'pragmatic' or 'contextual' factors, as they are sometimes called—in order to get on with a particular piece of work. And as long as caution is exercised there is no harm in this. For example, *with certain restricted purposes in mind*—and without any sort of absurd commitment to the idea that such entities play a role in utterance interpretation—formal 'indices' can be introduced to serve as 'contexts' with which sentences can be paired in order to 'anchor' or 'co-anchor' the interpretations of certain 'context-sensitive', or broadly 'indexical' expressions. The usual idea is to construe such expressions as free variables that have values only relative to indices. Famously, this idea has been used to capture model-theoretically the validity of inferences whose premises and conclusions are

stated using indexical sentences.<sup>84</sup> It is paramount in such work to keep things tightly under control in the following sense: the logician wants a mechanism that can (a) scan a set of sentences for occurrences of symbols on some pre-existing list of devices that do not carry their values with them, then (b) use an index to assign a value to each occurrence of such a symbol. If this goes well, logical deductions can proceed (assuming a semantics for items of a pre-selected 'logical' vocabulary of course). If there is still slippage after the index has made its assignments, on standard assumptions there is only one solution: posit further indexical symbols in the sentences involved, symbols which are invisible in surface syntax yet revealed by an analysis of their 'logical forms', then try again.<sup>85</sup>

In the philosophy of language, indices have a methodological rôle for they can be used to anchor or co-anchor indexical and anaphoric expressions and so allow work to proceed more easily on *other* expressions and on what people say (and imply for that matter) by uttering them on given occasions. However, there is an idea that has emerged from work on indexical logics for which we can have little sympathy. This is the idea that sentence meanings and contexts can be paired to provide something of *empirical* significance: what a *sentence X says relative to a context C*.<sup>86</sup> We must not lose sight of certain facts. First, as far as utterance interpretation is concerned, such 'contexts' are strictly irrelevant. Utterances do not come with such devices attached that anchor or co-anchor indexical, demonstrative, or anaphoric pronouns. The hearer has plenty of *pragmatic* work to do, much of it rightly called inferential, albeit inferential in a way that is steered by the meanings of individual words. A few passages from Evans (1982, 1985) summarize the situation well:

All that the conventions governing the referring expression 'he' insist upon, in any given context, is that the object referred to should be male. (1982: 312) There is no linguistic rule which determines that a 'he' or a 'that man' refers to *x* rather than *y* in the vicinity, or that it refers to someone who has just left rather than someone who has been recently mentioned (1985: 230-1). 'This' and 'that' are even less specific, contributing merely the vaguest suggestion of a contrast between nearer and further (in some generalised sense). . . [Footnote: Often the *predicate* does more to narrow down the range of possible interpretations of the referring expression than does the referring expression itself . . . ] (1982: 312). Let me take another example: the expression 'you': If a speaker addresses a remark to someone, saying, 'You are a crook', it is surely clear that an identification is called for on the part of the audience: in order to understand the remark, it is not enough to know that there is one, and only one, person whom the speaker is addressing, and that the speaker is saying of that person that he is a crook . . . a quite specific *kind* of identification is called for; the person addressed has not understood the remark unless he realizes that the speaker is saying that *he* is a crook. . . . understanding the remark requires the hearer to know *of* an individual that he is being addressed. (1982: 314).

Nothing about the meaning of the word 'you' tells you that you are being addressed.<sup>87</sup>

Quite generally, there is something artificial about construing the meanings of (e.g.) 'I', 'we', 'you', 'he', 'she', 'it', 'they', 'this', 'that', 'these', 'those', 'here', 'now', 'there', 'then', 'today', 'yesterday', and 'tomorrow' as functions from contexts to references. The meanings of these devices, as Evans (1982, 1985), Russell (1940), Perry (1978, 2001), and Sperber and Wilson (1986) stress, are just perspectival *constraints* on references, more precisely perspectival constraints on the *referential intentions* with which the devices can be used. I am astonished at how much mainstream philosophy of language ignores this. We need to distinguish two ideas about formal contexts, one sensible, the other silly. The silly idea is that utterances come with pre-packaged 'contexts' that provide values for indexical expressions. The sensible idea is what I call *methodological anchoring* (*anchoring* for short). For various pragmatic, semantic and syntactic purposes, it is often helpful, perhaps even mandatory, for a

theorist to abstract from certain ‘contextual effects’ or ‘pragmatic factors’ in order to get on with a piece of work, and so it is sometimes useful to use an ‘index’ as a way of anchoring the interpretations of indexical expressions that are not, at that moment, the objects of primary concern, *even though the theorist knows the interpretation of these indexicals is not as straightforward as invoking an index might suggest*. If one is working on definite descriptions, for example, one might want to prescind, as much as possible, from the effects of, say, indexical pronouns occurring inside nominals; and if one is working on ‘and’, for example, one might want to prescind, as much as possible, from the effects of, say, indexical pronouns occurring inside conjuncts or inside the matrices of descriptions. To this end, we might use an index to anchor or co-anchor these expressions, to keep their special features and the complexities they introduce out of the picture as it were.<sup>88</sup>

A certain amount of care is needed in the use of the word ‘semantic’ when indices are used to anchor (or co-anchor) indexical expressions. To the extent that we are investigating the conventions governing a word whose rôle cannot be set out clearly without taking into account the conventions governing other expression(s) with which it combines to form larger expressions, we may find it convenient to talk about the (derived) conventions governing the larger phrases with respect to a particular index. For example, if the semantics of ‘the’, is being investigated, it is often useful, sometimes essential, to anchor indexicals so that *other* contextual effects may be monitored. And although we may want to talk about the ‘linguistic meaning’ of, the ‘semantics’ of, or the ‘conventions governing’ an indexical or any other expression, we may also wish to talk about its ‘semantic value’ relative to a particular index, the object conveniently assigned to it by an index in order that work on pressing matters is not held up needlessly. There is no harm in such talk as long as everyone is clear about what is going on. ‘Semantic values’ in this sense, are just *stipulated interpretations*, and the anchoring it involves is quite consistent with the idea that the interpretation of indexical expressions is basically a pragmatic matter only steered by semantic constraints.

Talk of sentences-relative-to-indices has some *methodological* value: artificially anchoring a limited range of expressions enables us, as theorists, to prescind from certain limited contextual issues and so get on with other business. To the extent that ‘what is expressed’ (‘what is said’) by a sentence  $\phi$  relative to an index  $C$  approximates the proposition the speaker expressed (what the speaker said) by uttering  $\phi$  on a given occasion (certain basic features of which  $C$  is taken to model), such entities are harmless enough. But when it comes to putting together the pieces of a theory of interpretation, we cannot rest content with the artificial anchoring of certain indexicals: we want an account of how they are actually dealt with in the interpretation process. But even when we have such an account, we will still not have a full specification of what the speaker said because of the myriad ways in which what is said is underdetermined even relative to fixing the interpretations of indexicals.

## 12. THE WEATHER GAME

My father called me around 6PM (GMT) this evening from England. Being British, he did not neglect to inquire about the weather here in Reykjavík: ‘How’s the weather there,’ he asked. Now I could easily have replied by uttering (1):

(1) it snowed today.

But, in fact, I replied with (2):

(2) it snowed here today.

In much of the literature, it is taken for granted that I would have expressed the same proposition by uttering (1) as the one I did, in fact, express by uttering (2). This is not self-evident, however, partly because the matter of a purported aphonics in the underlying syntax of both (1) and (2) needs resolving.<sup>89</sup> Let us for the moment assume that there is no aphonics, indexical, locative in (1) or (2).

My utterance of (2) seems like a familiar sort of case in which the linguistic meaning of a sentence underdetermines the proposition the speaker expressed by uttering it, a case in which the hearer must use information not encoded in the sentence itself in order to identify that proposition. What did my father do, in very general terms, when he identified what I was saying by uttering (2)? The short answer is that he identified the sentence I used and integrated the *semantic* information encoded in that sentence with various pieces of *non-semantic* information he obtained from elsewhere (such as the information that I am in Reykjavík). At present, we have very little idea about the mechanics of *how* he did this—that is a question to be answered by a theory of the cognitive processes involved in utterance interpretation—but we do most certainly know this is *what* he did.

One thing my father had to do was associate a particular place, Reykjavík, with my use ‘here’, since that is where I am (and was when he called). There is nothing in the meaning of the word ‘here’ to connect it to Reykjavík, for otherwise it would surely mean what ‘in Reykjavík’ means, which it does not. (Moreover, the fact that I could have performed an equally successful speech act in the circumstances by uttering (1), which contains no overt locative expression, demonstrates that it is not the presence of the word ‘here’ itself that makes it the case that the hearer must identify the location I am talking about in order to grasp the proposition I expressed. See below for discussion.) In this particular case, my father is able to home in on Reykjavík rather easily via a conspiracy of the following:<sup>90</sup>

- (i) his confidence that I am the speaker;
- (ii) his confidence that I am in Reykjavík;
- (iii) his confidence that I am attempting to answer his question, which was about the weather here in Reykjavík;
- (iv) his tacit knowledge that when a speaker uses ‘here’ he is constrained to be referring to his own location or surroundings— at the moment of use or re-use or whatever in the case of recordings for answering machines or voicemail—the boundaries of which may vary considerably from occasion to occasion.

It is a task for cognitive science to establish how (i)-(iv) come together in my father’s head to yield an interpretation. The mere existence of expressions like ‘here’, ‘there’, ‘now’, ‘then’, ‘I’, ‘you’, ‘he’ and so on, means that the semantic information encoded in a sentence  $\phi$  does not always provide all of the information necessary for the hearer to identify what someone is saying by uttering  $\phi$  on a particular occasion. Additional information must be picked up by listening, watching, remembering, and even deducing; and, as such, identifying what someone is saying involves rather more than identifying the words uttered and their syntactic arrangement, retrieving the meanings of the words from one’s lexicon, and projecting from these in accordance with the identified linguistic structure.

This does not mean, of course, that philosophers and linguists who have reflected on the use and structure of language have nothing useful to say to the cognitive scientist whose job it is to construct a theory of interpretation that explains how this form of informational integration takes place and how it delivers the results it does. They can at least specify what the *aim*

should be in any particular case, specify the type of information that must be drawn upon, and characterize the information encoded in particular sentences. In the case at hand, the cognitive theory must explain *how* my father arrived at the conclusion that I was saying that it snowed in Reykjavik today (assuming this is, in fact, what I am saying).<sup>91</sup>

Now consider a different scenario. My father and I are playing an elaborate game we call *the weather game*. It is played like this. I start out in London and must return there within thirty days, making stops in Nairobi, Sydney and Vancouver, and I must move at least 500 miles every (GMT) day. I am allowed to take any commercial aeroplane, train, or boat, and my father has a vast array of timetables at his disposal on the internet as well as world weather reports. No matter where I am, I must call him every day at 6PM (GMT) from a secure, untraceable, satellite telephone I carry with me, and give him a weather report. My father has to guess where I am. If he gets it in five attempts, he wins the day's round; if he doesn't, I do. Silly, but there you go.

Day one, today. I flew from London to Reykjavik. At the allotted hour my father asks me for the relevant weather report, I utter (2). He starts to ruminate. Since it's only the first week in November, I must have gone north to see snow, he conjectures; and then he runs through a few possibilities drawing upon information he has about geography, transportation possibilities, my past travels, family trips, places I have good friends or professional commitments, and so on: Edinburgh, the Faroes, Reykjavik, Oslo? Question: has my father grasped the proposition I expressed? Or is his aim in the game quite rightly described as *guessing the proposition I expressed*. In the context of the weather game, we are strongly inclined to say that he *understands me* perfectly, for it is accepted that I will use the word 'here' (and perhaps also the word 'there' if I am sufficiently far ahead in the game and don't mind giving him an occasional clue by talking about the weather in a place I passed through earlier in the day, or a place I plan to visit tomorrow) without expecting him to recognize immediately where I am (was or will be). That's part of the game. But our question is: does my father grasp the proposition I express? What proposition *did* I express: the location-dependent (i.e. Reykjavik-dependent) proposition that it snowed today *in Reykjavik*? Or the location-independent proposition that it snowed today *in my current location*. The former seems to me the correct answer, 'here' being rigid and 'my current location' being flaccid. (And surely I can say something true by uttering the sentence 'my current location might not have been Reykjavik.') On the basis of my utterance of (2), my father is able to more or less immediately grasp the location-independent proposition that it snowed today in my current location, and he must use that (and a lot of other things) to identify the location-dependent, (i.e. Reykjavik-dependent) proposition that I am expressing.<sup>92</sup>

Suppose that I had omitted the word 'here' when talking to my father, using (1) instead of (2), in an obvious modification of the actual case and an equally obvious modification of the case involving the weather game. In the modification of the actual case, the situation would not have been dramatically different (similarly if my father had not heard the word 'here' because of static on the line or a drop in volume or my mumbling or whatever). Of course, the presence of the word 'here' imposes a constraint on the interpretation of utterances of (2) that is not imposed on the interpretation of utterances of (1). This is evident from the fact that my father might go on to relay the information that it snowed in Reykjavik today to my mother by uttering (1), but not by uttering (2), since he is not in Reykjavik.<sup>93</sup> Now according to Perry, I would have expressed the same proposition as the one I expressed when I uttered (2): the proposition that it snowed in Reykjavik today. Since there is no expression in (2) by the



utterance of which I would be referring to Reykjavík, we must say with Perry that Reykjavík would be an unarticulated constituent of that proposition. (Remember, for now we are operating on the assumption that there are no aphonics in (1) and (2).)

Would my father have faced some new difficulty in interpreting my utterance that he did not face in connection with my utterance of (2)? Like (2), (1) can be used by a speaker to say that it snowed today somewhere other than Reykjavík, but it has an additional degree of freedom: unlike (2) it can be used by a speaker to say that it snowed today somewhere other than *where the speaker is* (that's why my father can use it in England to pass on information about the weather in Reykjavík). The absence of the word 'here' in (1) means that the knowledge mentioned in (iv) above is unhelpful in interpreting utterances of this sentence. And *in principle* this means my father's task is harder. In practice, I suppose it would not have been any harder at all. The confidence mentioned in (iii) would seem rather more significant in the case of an imagined utterance of (1) than it was in the case of my actual utterance of (2); indeed it was not strictly necessary in the actual case, given (i), (ii) and (iv).

Now back to the weather game. Is there any reason to think that by uttering (1) when playing the weather game I express a proposition any different from the one I express from the same location, at the same time, (a) by uttering (2) when playing weather game, or (b) by uttering (1) when not playing the weather game? Not really. In each case the proposition I express is surely the Reykjavík-dependent proposition that it snowed in Reykjavík today.

Now back to the original dialogue with my father. Given the wording of his question and the fact that he knows where I am—*he* called *me*, after all—using (1) instead of (2) to reply would have been perfectly natural in the circumstances. But suppose I had used (3):

(3) it snowed in Reykjavík today.

This would have been slightly less natural; at the same time, it is hard to deny that I would still have expressed the proposition that it snowed in Reykjavík today. So what would the slight unnaturalness in my use of (3) consist in? Perhaps not much more than the unnecessary use of a name. When we are talking about a person, we naturally slip into the use of pronouns when confusion on the part of the audience is unlikely. Similarly with places, except that instead of, say, 'in Reykjavík', we slip into 'there' or 'here'. Why do we have a choice between 'there' and 'here'? *Perspective*. My father's question, recall, was 'How's the weather there?' It would have been fine for me to reply with (1); it was fine for me to reply, as I did, with (2); it would have been acceptable, if a little unnatural, for me to reply with (3); but it would have been quite unacceptable for me to reply with (4):

(4) it snowed there today.<sup>94</sup>

Now suppose my father's question had been 'How's the weather in Reykjavík?' (rather than 'How's the weather there?'). If I had replied with (4), surely I would have given the impression that I was not in Reykjavík (my father called me on an Icelandic *mobile* number, so I could have used (4) intending just this implication). There are really two ways of thinking about this. We might say that I would have *conventionally implicated* (in Grice's sense) that I am not in Reykjavík, where a conventional implicature does not bear on the truth or falsity of what is said, of the proposition expressed, despite being triggered by the linguistic conventions governing the use of the sentence uttered.<sup>95</sup> Alternatively, we could say that I would have said *two* things, expressed *two* propositions, by uttering (4), the true proposition that it snowed in Reykjavík today, and the false proposition that I am not in Reykjavík.<sup>96</sup>

Either way, one thing is clear: to use the word ‘there’ is not merely to refer to a location, it is to *locate oneself* with respect to that location, at least coarsely.<sup>97</sup> And of course the same is true of ‘here’. Suppose my father’s question had been, ‘How’s the weather in Reykjavík?’ and I had replied with (2). We are faced with the same theoretical choice. We could say that I conventionally implicated that I am in Reykjavík, or we could say that I said that I am in Reykjavík (in addition to saying it snowed here today). I see no reason to come down on one side or the other at the moment.

We have two more sentences to take into account:

- (5) it snowed here in Reykjavík today.
- (6) it snowed there in Reykjavík today.

I could certainly have responded to my father’s question with (5), but it might have seemed a little long-winded. Now (5) brings up an interesting question that appears to go beyond the questions we asked in connection with (2): Would I have referred to Reykjavík *twice*, once with ‘here’, again with ‘in Reykjavík’ (or at least with the ‘Reykjavík’ part), and perhaps even a third time with the compound (if such it is) ‘here in Reykjavík’? I propose to postpone discussion of this matter.

It would have been *extremely* unnatural, indeed quite infelicitous, for me to have answered using (6). As with (4), there would appear to be two ways of thinking about the infelicity. (i) I would have said something true (that it snowed in Reykjavík today) and only conventionally implicated something false (that I am not in Reykjavík). (ii) I would have said something true (that it snowed in Reykjavík today) and also *said* something false (that I am not in Reykjavík).

So we are left with a few questions: would I have expressed the same proposition by uttering any of (1)-(6)? Would I have referred to Reykjavík twice (or even three times) in some cases? If so, is that because I would have expressed two propositions? However we answer these questions, we do not have to say that any of pair (1)-(6) have the same *meaning* in any interesting sense, or the same communicative utility.

I want to avoid talking about reports (attitude or otherwise) as much as possible in this paper, but a brief word is in order at the this juncture. My father could use any of the following except (2’) or (5’) to report what I said:

- (1’) Stephen said that it snowed today
- (2’) \* Stephen said that it snowed here today
- (3’) Stephen said that it snowed in Reykjavík today
- (4’) Stephen said it snowed there today
- (5’) \* Stephen said that it snowed here in Reykjavík today
- (6’) Stephen said it snowed there in Reykjavík today.

The philosopher trying to provide a specification of what I said will probably choose (3’). Why? Because typically he will try to flush out certain *perspectival* features, and typically that means taking it easy with indexicals in his report. Why does he care about perspective? Because the philosopher is trying to play God, or at least trying to talk as if he has a God’s eye view of things, and words like ‘here’ and ‘there’ cause God all sorts of problems. When specifying the proposition expressed, philosophers tend to use a sentence that *someone* else, *somewhere* else, and if possible *somewhen* else, might be able use to do the same thing, choosing his sacrifices carefully. One only has to look at the notation of structured

propositions to see how we flee from indexicals to the seeming safety of proper names. ‘CICERO’ and ‘CATILINE’ frequently occur within angled brackets as proxies for individuals:

⟨CICERO, ⟨DENOUNCED, CATILINE⟩⟩

But ‘HE’ and ‘HIM’ do not. ‘ROME’ and ‘REYKJAVÍK’ get used, but ‘HERE’ and ‘THERE’ do not.

Now (2’) above can be used today only by someone in Reykjavík to specify the proposition I expressed, and to that extent it is *less useful* than (3’). But what about (1’)? Isn’t this just as useful as (3’)? I could have used (1) to say that it snowed in Reykjavík today, so surely the philosopher can use (1’) today to specify what I said, wherever that philosopher may be. The problem is that (1’) is *too useful*. It can also be used to specify what I would have said if I had uttered ‘it snowed’ to say that it snowed in Rome (or New York, or . . .) today. So (3’) is the one that will tend to be used by the philosopher.

It is worth noting, however, that sometimes indexical or anaphoric devices occur very naturally in reports, even when made by philosophers. This is particularly true when words being used to make certain things salient or words being used as variable-binders occur in the linguistic material leading up to the specification:

- (7) When he spoke from *Reykjavík* earlier, Stephen said it snowed there today
- (8) *Jón* said to *Ósk* that he had found her scarf
- (9) Maria approached *each man* individually and said to him that he looked tired.

Sometimes this makes it easier to identify unarticulated constituents, as in (7’), or virtually forces a particular identification, as in (7’), or really does force it, as in (7’’’), which nonetheless feels as if it is missing a ‘there’:

- (7’) When he spoke from Reykjavík earlier, Stephen said it snowed today
- (7’’) When discussing the weather in Reykjavík, Stephen said it snowed today
- (7’’’) Concerning Reykjavík, Stephen said it snowed today.

### 13. SYNTACTIC, SUBSYNTACTIC, PARASYNTACTIC

Perry appears to presuppose no particular syntactic theory or to advance any particular syntactic thesis. In connection with (1),

- (1) it’s raining.

Perry says,

we do not need to first find an expression, hidden in the “deep structure” or somewhere else and then do the semantics of the statement augmented by the hidden expression. Things are intelligible just as they appear on the surface, and the explanation we might ordinarily give in nonphilosophical moments, that we simply understand what the statement is about, is essentially correct (1986: 211)

Perry is not claiming that it is false that (1) contains a ‘hidden’, ‘covert’, ‘silent’ or ‘unpronounced’ expression. Or that it is false that (1) has an underlying LF one of whose components is an expression the use of which on a particular occasion refers to a location. His point is simply that it does not appear to be *necessary* to posit a hidden expression or an underlying level of, say, LF in order to provide an intelligible description or explanation of how an utterance of (1) is understood on a particular occasion. (Note the modal.) The sort of description or explanation that one might get from someone with no prior knowledge of LF or

covert syntax, or from a philosopher who wishes to remain agnostic on thorny syntactic matters, is perfectly intelligible.

In a more recent work Perry (1998) again takes into account only rudimentary grammatical ideas. There is “no morpheme” (1998: 9) in (1), he says, the use of which designates a place. In such a case,

We lack the materials we need for the proposition expressed by a statement, even though we have identified the words and their meanings, and consulted contextual factors to which the indexical meanings direct us. (1998: 8). The task of identifying the unarticulated constituents of the proposition expressed by an utterance remains after all of the relevant semantic rules have been understood and applied. (1998: 10)

And in a recent book, he again says that there is “no morpheme” (2001: 45) in (1) whose use designates a place, adding:

When we have the syntax of [(1)] and the meanings of each of the component words, we still don’t have the content. (2001: 45). An unarticulated constituent . . . is . . . a constituent of the proposition that is not the referent of some morpheme in the statement. (2001: 47).

The most detailed statement on this topic I have been able to find in Perry’s publications is contained in a footnote to a 1998 paper:

Calling this phenomenon “unarticulated constituents” instead of, say, “implicit reference” is simply meant to focus on what I think as the starting point of investigation, the question of how there can be a constituent in the proposition, with no corresponding expression in the utterance. I sometimes use the more common and traditional term “implicit reference” for what the speaker does, that leads to there being a constituent that is unarticulated. But I think the term “implicit reference” is sometimes thought to be necessarily connected to what I regard as special case. In some cases of implicit reference there is a feature, a trace, a sort of phantom expression, that serves in place of an expression, so the referred to constituent really isn’t unarticulated. Linguists often agree on the criteria for and presence of such features; it is a robust phenomenon. But I do think that saying there is such a feature should amount to more than saying that we use an  $n-1$  place predicate for an  $n$ -ary relation. I am interested in the theoretical possibility and coherence of truly unarticulated constituents; I also hope, however, that I have found some convincing examples that they really occur. (1998: 9 n 4).

The thought here seems to be when a philosopher (or linguist) finds a superficially  $n$ -place predicate  $R$ , uses of which appear to express an  $n+1$ -place relation, it does not follow as a matter of semantics or metaphysics or anything else that linguists simply have no choice but to treat  $R$  as a predicate with  $n+1$  argument positions somewhere in their theories of *syntax*. A solid interpretive reason for thinking the proposition  $\langle \dots \alpha \dots \rangle$  expressed by a use of a sentence  $X$  contains a constituent  $\alpha$  corresponding to no component of  $X$ ’s superficial form is not *ipso facto* a solid reason for postulating an aponic expression in  $X$ ’s syntax, or supposing anything syntactic whatsoever. (Would that syntacticians were so easily moved by philosophers’ interpretive claims!) We need to distinguish between the linguistic notion of a *predicate* and the metaphysical notion of a *relation*; and to distinguish correspondingly between the linguistic notion of an *argument position*, and the metaphysical notion of an *argument rôle* (Perry, 2001: 47-8).<sup>98</sup> The discovery that the proposition expressed by a use  $X^u$  of a sentence  $X$  whose surface form appears to contain a predicate  $P$  with  $n$  argument *positions* to be occupied by  $n$  terms nonetheless involves  $n+1$  entities filling the argument *rôles* of an  $n+1$ -place relation  $\mathfrak{R}$  expressed by the use  $P^u$  of  $P$  ( $P^u$  a portion of  $X^u$ ) is not *ipso facto* a *syntactic* discovery. Some sort of argument about the nature of syntax and its rôle in the psychology of interpretation would be needed to reach that syntactic conclusion, an argument

to the effect that no argument rôle of  $\mathfrak{R}$  may be filled by anything other than the entity designated by the use of the occupant of an argument position of  $P$ . In the absence of such an argument, we are in familiar linguistic territory: if we take LF seriously, we postulate an additional argument position of  $P$  in  $X$ 's LF occupied by an expression with no phonic realization if, and only if, such a postulation helps us explain syntactic facts, comports with other postulations, and quite generally appears to improve our grasp of the syntax of natural language. Philosophical speculation about the elements involved in interpretation is all well and good, necessary even, but it must go hand in hand with empirical investigations, which involve not just coverage of data but examination of the consequences of particular syntactic posits for other aspects of syntax.

Perry is, as he says, “interested in the theoretical *possibility* and *coherence* of truly unarticulated constituents” [my italics, SN], constituents for which syntacticians have yet to provide (and perhaps never will provide) compelling syntactic reasons for treating as the occasion-specific values of corresponding syntactic components, constituents that may fall beyond the boundaries of the “robust phenomenon” of aphonics in syntax. And Perry hopes, he says, to “have found some convincing examples”.

Let us look briefly at the “robust phenomenon” Perry alludes to. Examples that many linguists see as involving a “trace” or “phantom” expression include a good number of those that traditional grammars describe in terms of the “understood subject” of a subordinated verb. A classic example is (3), where it is natural to say that we have an embedded infinitival clause, just as in (2):

- (2) everyone wants [<sub>S</sub> Pavarotti to sing].
- (3) everyone<sup>1</sup> wants [<sub>S</sub>  $X_1$  to sing]

We are surely dealing with a single verb ‘want’ in (2) and (3), and it is clear from the former that its syntactic complement is a whole clause, albeit one that occurs in the infinitive. We are therefore virtually forced into postulating an aphonic subject of an embedded clause in (3), an expression often called PRO which has a meaning but no sound, an expression that is semantic but aphonic (the converse, if you like, of the ‘it’ in (1) which is phonic but asemantic). That PRO is semantic seems to be borne out by the fact that it seems to behave here as if were a variable bound by ‘everyone’.<sup>99</sup> For the sake of argument, let us suppose that the best way of capturing the idea that there is an aphonic expression in (3) is to see a sentence as a pair comprising a PF and an LF, where the former is (roughly) a representation that expresses its phonology, and the latter a representation that expresses *all* syntactic properties relevant to interpretation. The interpretation of PRO is required, by the syntax and the meaning of the verb ‘want’, to proceed by way of the interpretation of the subject of ‘want’ in (3).<sup>100</sup>

So far, so good. The postulation of an aphonic in (3) is certainly not just a funny way of saying that “we use an  $n-1$  place predicate for an  $n$ -ary relation”. So the *general* question before us is the intelligibility of the following idea: the regular use of sentences  $X$  whose principal predicate is (even at LF) an  $n$ -place predicate to express propositions containing an  $n+1$  relation as a principal constituent. And the *particular* question before is whether Perry is right to think that a sentence containing ‘rain’ or ‘snow’ as its main verb is such a sentence. I am aware of no argument against the intelligibility of the *general* idea, indeed I have no idea how one might even *begin* to construct such an argument, for I know of nothing in syntactic theory that undermines it. We must examine particular cases and see if there are particular syntactic considerations that move us.<sup>101</sup>

Let us turn now to an illuminating discussion by Ken Taylor (2001). The core of the story about interpretation Taylor favours is called ‘Parametric Minimalism’, a label borrowed from Récanati (1993). According to Taylor,

A sentence typically sets up a semantic scaffolding which constrains, without determining, its own contextual completion. The sentence does so by containing a variety of parameters the values of which must be contextually supplied in some more or less tightly constrained way. Sometimes the to-be-contextually-evaluated parameter is explicitly expressed in the syntax of the sentence. This is the case with explicit indexicals, demonstratives and also with verb tenses. Sometimes, however, the to-be-contextually-evaluated parameter is “suppressed” or hidden. Saying just where such parameters hide is a difficult matter—one perhaps better left to linguists than to philosophers. But I venture the hypothesis that some unexpressed parameters hide in what we might call the subsyntactic basement of suppressed verbal argument structure. (2001: 53)

I am uncertain whether Taylor is using ‘unexpressed’ and ‘suppressed’ interchangeably, but nothing I say is going to turn on this. Here’s the interpretation of Taylor I like. Parameters may be *expressed* or *unexpressed*, and amongst the latter are those that are *suppressed*. We can leave it open whether all unexpressed parameters are suppressed parameters, restricting the immediate hypothesis to the existence of *some* unexpressed parameters that are merely *suppressed* (hidden in the subsyntactic basement) but in principle detectable by *linguistic* means, i.e. as a result of empirical work in generative grammar. We can also leave it open whether there might be unexpressed parameters of a use of a sentence that go beyond argument structure but are nonetheless constrained by the semantic scaffolding of the sentence used. That is, we can leave it open whether the underarticulation of the proposition expressed by the sentence used to express it may outstrip the fixing of parameters *expressed* and *suppressed*, for there may be unexpressed parameters that have nothing to do with argument structure *per se*. If this is what Taylor means, then I think I am in complete agreement.<sup>102</sup>

According to Taylor, as I am interpreting him, the verb ‘rain’ has a ‘lexically specified’ but ‘syntactically unexpressed’ argument place of which we have ‘tacit cognition’. I take this as loose shorthand and interpret Taylor as meaning by it that the lexical properties of ‘rain’ determine that it expresses a *relation* that has a syntactically unexpressed argument *rôle*. Here are Taylor’s own words on the matter:

The view which I favor supposes that the verb ‘to rain’ has a lexically specified argument place which is  $\theta$ -marked THEME and that this argument place takes places as values. This is a way of saying that the subatomic structure of the verb ‘to rain’ explicitly marks rainings as a kind of change that places undergo. Now from the point of view of sentence-level syntax such lexically specified parameters are what I call subconstituents rather than constituents. Though subconstituents need not be expressed as sentence-level constituents, they make their presence felt by “demanding” to be assigned a contextually supplied value. Thus though [(1)] is missing no syntactically mandatory sentential constituent, nonetheless, it is semantically incomplete. The semantic incompleteness is manifest to us as a felt inability to evaluate the truth value of an utterance of [(1)] in the absence of a contextually provided location (or range of locations). This felt need for a contextually provided location has its source, I claim, in our tacit cognition of the syntactically unexpressed argument place of the verb ‘to rain’. (Taylor 2001: 53)

This is very compressed, of course, but I like what I *think* are the main ideas (which can, perhaps, be spelled out in various ways). I would like to think Taylor means something like this, or would at least view this way of putting matters as in harmony with his own, once his prose is decompressed in a way that purges it of what is, strictly speaking, infelicitous talk of argument *places*: (i) A use of a verb V expresses a relation with *n* mandatory argument *rôles*

(in Perry's sense). (ii) The lexical structure of V specifies for each of its  $n$  rôles, the sort of thing that may occupy that role. (iii) The lexical structure of V also specifies some number  $m$  of mandatory argument *positions in syntax*. (iv) There is no requirement that  $m=n$ . (v) Some of V's argument positions are specified to be individually connected to individual argument rôles. (vi) Although argument rôles and argument positions are in a sense made for one another, there is no requirement that for every argument rôle of the relation expressed by a use of V there is a corresponding argument position in syntactic structures containing V. (vii) Nor is there any requirement that for every argument position in syntax there is a corresponding argument rôle. (viii) A proposition is expressed by a use of some expression E(V) containing V only if *every* argument rôle is occupied. (ix) E(V) is a sentence only if *every* argument position is occupied. There is no commitment in any of this to aphonic syntactic elements ensuring that for every argument rôle there is an argument position. And that seems right to me. It is an empirical issue in any given case whether or not a particular occupant of an argument rôle (the occupant being a constituent of the proposition expressed by virtue of being such an occupant) is projected from the occupant of some particular argument position in syntax. In the case of my utterance of (1), the story is as follows. As a matter of fact  $m=n$ , but not because each of the argument position occupants is associated with exactly one of the argument rôle occupants and vice versa.  $m=n$  because we have exactly one unarticulated constituent (Reykjavík) and exactly one non-projecting articulant ('it'), i.e. exactly one argument rôle occupant (Reykjavík) with no corresponding argument position occupant, and exactly one argument position occupant ('it') with no corresponding argument rôle occupant. At least that is the way it looks at first blush. We can leave it as an empirical question whether work in syntax will reveal an argument position in the syntax of (1) occupied by an expression corresponding to Reykjavík, qua occupant of an argument rôle. What we cannot do is simply *conclude* that there must be such a position in order to render intelligible the idea that Reykjavík occupies the argument rôle it does in the proposition I express by uttering (1).

According to Récanati (2001), what Taylor says about 'rain' sentences is flawed. Concerning Taylor's proposal, Récanati says,

I think such an analysis is unavoidable once we accept Perry's claim that, to evaluate [(1)], we need a place. Or at least, it is unavoidable if we understand that claim as follows: for any token  $u$  of the complete sentence 'It is raining', it is necessary, in order to evaluate  $u$ , to be given a place. If the necessity concerns all tokens, it is a linguistic property of the sentence-type, hence, presumably, it arises from the internal lexical structure of the verb 'to rain'. (Récanati 2001: 317)

As we saw earlier, on the basis of a rather under-described and under-analysed scenario involving a rain-monitoring room, Récanati rejects the thesis that a location is always required in order to interpret an utterance of a 'rain' sentence, and this leads him to reject Taylor's description of the lexical structure of 'rain'.

If that is right, there is no need to posit a lexically specified argument-role for a location in the sub-atomic structure of the verb 'rain': 'Rain' is like 'dance' and other action verbs, contrary to what Taylor claims (2001: 54). That raining must take place somewhere or other is a metaphysical fact, not a linguistic fact. That fact does not prevent an utterance like [(1)] from expressing a fully determinate proposition even if no place is contextually provided. (2001: 317).

There are three problems here. First, Récanati's rain-monitoring room argument for the rejection of a mandatory location is ineffectual, and when an argument of the same general

form is spelled out in any sort of detail—for example, the one involving the rain-monitoring room on the island of Recanto—the only conclusion that comes into focus is the negation of the one Récanati is arguing for. So, in the absence of a convincing example of true locationless rain statement, there is every reason to think the antecedent of Récanati’s opening conditional is false. Second, the difference between ‘rain’ and ‘dance’ that Taylor stresses is robust, as we saw earlier. Third, the fact that it is just as much a metaphysical fact that raining must take place at a location as it is a metaphysical fact that dancing must, shows nothing whatsoever about locations as constituents of propositions expressed by ‘rain’ and ‘dance’ sentences. Taylor is right to insist that its location is to a raining as its dancer is to a dancing (not as its location is to a dancing).

Récanati goes on:

When a particular place is contextually provided as relevant to the evaluation of the utterance, that is for pragmatic reasons, not because it is linguistically required. In such cases, therefore, the place is a genuine unarticulated constituent. When we say ‘It’s raining’ and mean: It’s raining in Paris, the location is an unarticulated constituent of the statement, just as, when we say ‘Look! He is eating’ and mean: He is eating the dangerous mushroom, the mushroom is an unarticulated constituent. This is very different from cases of ‘completion’ where, as Taylor puts it, a subatomic variable “makes its presence felt by ‘demanding’ to be assigned a contextually supplied value.” (Récanati 2001: 318)

Now it is important to realize that Taylor does not talk of a subatomic *variable*, he talks of a subatomic *parameter*. The difference is crucial and again comes from Perry. On the linguistic side of the coin we have argument positions, singular terms, and variables; and on the metaphysical side argument rôles, objects, and parameters. So Taylor is not making a claim about a *variable*—a syntactic object—making its presence felt; he is, rather, making a claim about a *parameter* making its presence felt through meaning. And just as one cannot infer from the existence of an argument rôle of a verb to a corresponding argument position, so one cannot infer from the existence of a parameter in a proposition expressed by a use of a sentence to the existence of a corresponding variable in that sentence. (This is something I shall say more about later.)

Récanati’s appropriation of ‘unarticulated constituent’ and his use of ‘genuine unarticulated constituent’ compound problems here.<sup>103</sup> Récanati appears to want to reserve Perry’s expression ‘unarticulated constituent’ for constituents that are not mandated by argument rôles, but because of his conflation of parameters and variables he appears to equate the idea of a propositional constituent mandated by an argument *rôle* of a relation expressed by a verb with the idea of a propositional constituent mandated by an argument *position* of a verb (at LF). And this equation is something Taylor is careful not to assume, which is why it would be rash to claim that Taylor’s position on ‘rain’ is no more than a notational variant of the position that the LF of a ‘rain’-sentence contains an argument position for a location variable.

#### 14. COVERT OPERATIONS

Perry’s notion of an unarticulated constituent has been criticized by Stanley (2000). It is unclear to me, however, whether Stanley’s arguments against unarticulated constituents amount to more than the platitude that whenever Perry (or anyone else) posits an unarticulated constituent, it will always be possible to drum up a semi-formal, semi-English formula that contains a variable whose value we could take to be the purported unarticulated constituent. Stanley’s main claims are these:



all effects of extra-linguistic context on the truth-conditions of an assertion are traceable to elements in the actual syntactic structure of the sentence uttered . . . there are no convincing examples of what John Perry has called ‘unarticulated constituents’ (2000: 391).

The standard examples motivating the existence of unarticulated constituents are not persuasive . . . for each alleged example of an unarticulated constituent there is an unpronounced pronominal element in the logical form of the sentence uttered whose value is the alleged unarticulated constituent (2000: 410).

The occurrence of ‘logical form’ in the second passage is important. It crops up again in Stanley’s definition of ‘unarticulated constituent’:

*x* is an unarticulated constituent of an utterance *u* iff (1) *x* is an element supplied by context to the truth-conditions of *u*, and (2) *x* is not the semantic value of any constituent of the logical form of the sentence uttered (2000: 410).<sup>104</sup>

In the present context, Stanley’s switch from talk of the *proposition expressed* by a use of a sentence to talk of the *truth conditions* of an utterance of a sentence is unproblematic, and we should have no complaint: *truth conditions* will have unarticulated constituents, as it were, relative to particular uses or utterances of sentences. But there are things to tidy up before we can examine Stanley’s biconditional. First, his talk of “an unarticulated constituent of an utterance *u*” in the passage just quoted must be a slip—*propositions* and *truth conditions* have unarticulated constituents, not utterances—and it can be fixed by construing it, in the present context, as “an unarticulated constituent of *the truth conditions* of an utterance *u*”. Second, something needs fixing in the following gloss: unarticulated constituents, says Stanley, are

elements supplied by context to the truth conditions of utterances, elements which are not the semantic values of any constituents in the actual structure of natural language sentences” (2000: 410).

Now it is no part of Perry’s claim that there is no expression in natural language one can use to refer to Reykjavík, of course, and Stanley surely recognizes this. So by “the actual structure [sic.] of natural language sentences” Stanley must mean what he could have expressed more clearly using “the actual structures of the natural language sentences used in making those utterances.” Third, if we are to get anywhere at all, we shall have to overlook the following bizarre statement:

An unarticulated constituent analysis of an expression is closely related to the claim that the expression is an indexical in the narrow sense of the term” (2000: 411).

There can be no coherent talk of an expression *E* with the following two properties: (i) some people claim *E* is indexical; (ii) some people provide an “unarticulated constituent analysis of” *E*. Something  $\alpha$  is an unarticulated constituent of a proposition  $\langle \dots \alpha \dots \rangle$  expressed by a use of some sentence *X* precisely if there is *no expression E* that is part of *X* that has  $\alpha$  as its value on this use. So Stanley’s talk of “an unarticulated constituent analysis of an expression” makes no sense.

The real problem I see with Stanley’s biconditional concerns ‘logical forms’. Perry does not talk of a sentence’s ‘logical form’ in his description of unarticulated constituents; yet a notion of logical form, indeed a *particular notion of logical form imported from a favoured type of syntactic theory*, is at the heart of Stanley’s definition of an unarticulated constituent and vital to his broadside against Perry and others who accept UT.<sup>105</sup> By the “logical form” of a sentence, Stanley has in mind a *phrase marker* in the sense of generative grammar.<sup>106</sup> As he puts it, a sentence’s logical form is “a special sort of linguistic representation” (2000: 391) its “actual syntactic structure” (2000: 391) its “real structure” (2000: 392), which is “revealed by

empirical inquiry” (2000: 392) and which “is, in fact, quite distinct from its surface grammatical form” (2000: 392). It is striking that Stanley *refrains* from explicitly identifying a sentence’s logical form with its *LF* but does *not* refrain from saying he is using ‘logical form’ in accordance with what he claims is “standard” usage in syntactic theory:

syntax associates with each occurrence of a natural language expression a lexically and perhaps also structurally disambiguated structure which differs from its apparent structure, and is the primary object of semantic interpretation. In accord with standard usage in syntax, I call such structures *logical forms* (2000: 393).<sup>107</sup>

In short, the logical form of an English sentence is a genuine of representation of syntactic structure ripe for interpretation, something generated by a syntax or grammar for English.

Let me say, straight away, that I am in harmony with Stanley on one important point: I too advocate ‘logical forms’ construed as syntactic structures distinct from surface structures that are the inputs to semantic interpretation, and this has always put me at odds with Perry.<sup>108</sup> So I have no qualms with the general syntactic framework Stanley wishes to use in his own theorizing. But Stanley wields the framework itself as a *weapon*. And this is, at best, unhelpful.

Many linguists explicitly *reject* syntactic frameworks that posit logical forms in Stanley’s sense. At Perry’s home institution alone, all sorts of theories have bloomed that explicitly reject ‘logical forms’, or reject aphonics in syntax, or reject the idea of a level of syntactic representation as removed from surface appearances as logical forms (in Stanley’s required sense) are meant to be, or reject the idea of more than one level of syntactic representation.<sup>109</sup>

Within the Chomskyan Principles and Parameters framework, some versions of theories that posit Logical Form, or LF, as a *bona fide* level of syntactic representation are effectively positing logical forms in the sense Stanley is talking about. To be sure, there are plenty of substantive internecine debates amongst such LF theorists—about whether LFs are really rich enough to be objects of semantic interpretation, about whether a sentence’s LF is the *only* object of semantic interpretation, about whether all quantifiers (and possibly even proper names) undergo raising at LF, about whether all information about quantifier scope is really present at LF, about the precise statement of the Binding Theory, about which principles of the Binding Theory the different types of aphonics fall under, about island constraints on movement and interpretation, about purported advantages of a copy theory of movement, and so on.<sup>110</sup> But none of this touches the fact that there is something approximating a “standard” use of ‘logical form’, or at least ‘Logical Form’ *amongst these LF theorists*, even if important details are fiercely debated and different stances are taken on the nature and shape of an overall theory of meaning.

The first question to ask here is whether it is for substantive or merely expository reasons that Stanley refrains from calling the logical forms he is talking about LFs.<sup>111</sup> This is a matter about which we need to be absolutely clear. Stanley gives us no syntactic theory of his own, yet he makes *syntactic* claims about logical forms containing aponic expressions for which he claims to have *syntactic* evidence; and he dismisses views, such as Perry’s, which he claims are undermined by this syntactic evidence.<sup>112</sup> Obviously, one cannot start making such claims and dismissals if one has no theory whatsoever in mind about what these syntactic structures look like. So presumably Stanley has in mind *some* syntactic theory (or at least *some* syntactic analyses that can be stated in *some* syntactic theory or theories). One can certainly appeal to LF in setting out one’s own proposals and do so without giving *all* of the details of one’s favourite account of LF. But one cannot get away with claiming that *syntactic theory* writ

large demonstrates the correctness of one's position and the falsity of all rival positions without getting into the thick of an empirical theory of syntax and explaining *why* one's theory is the only one that can be taken seriously.

Stanley may be refraining from saying he is talking about LFs for any of the following reasons, or for certain combinations of them:

(i) He *does* mean LFs, but doesn't want to get drawn into exposition, assuming many of his readers are familiar enough with talk of LF to make the connection. (ii) He *does* mean LFs, but wants to avoid getting into internecine debates about quantifier raising, Binding Theory, types of aphonics, and the like.<sup>113</sup> (iii) He *does* mean LFs, but wants to leave the door open for other syntactic theories that may posit phrase markers with the properties he ascribes to logical forms. (iv) He does *not* mean LFs, but 'logical forms' in some other unnamed syntactic theory. (v) He does *not* mean LFs, because he has nothing particularly specific in mind by 'logical form', just a general idea which involves positing 'logical forms' containing aphonics and which might be approached through any of a number of possible syntactic theories.<sup>114</sup>

Whatever Stanley's theoretical and dialectical intentions, one thing is clear: without making *some* assumptions about the syntax of his 'logical forms', he has no meaningful argument against Perry or anyone else when it comes to unarticulated constituents, for his arguments purport to demonstrate on *empirical grounds* the presence of an aphonics in a sentence's syntactic structure, specifically in its 'logical form', that has as its value on a given occasion precisely the entity said by Perry (or whomever) to be an unarticulated constituent.

Anyone who has taken a logic course can produce semi-first-order, semi-English 'logical forms' containing variables meant to be bound by quantifiers as a way of explicating the truth conditions of uses of English sentences, perhaps even in ways that respect certain syntactic features of the original English sentences deemed to be of semantic relevance. Philosophers do this sort of thing all of the time, it's one of the stock techniques for making ourselves clear, whatever the subject matter. But this is precisely what Stanley claims *not* to be doing. He says in no uncertain terms at the beginning of his paper that *his* 'logical forms' are empirical posits of syntactic theory, phrase markers.<sup>115</sup>

When we examine Stanley's arguments, it becomes clear they are beholden to the correctness not only of a syntactic theory of a certain type, but also the correctness of certain *syntactic theses* meant to form part of a theory of that type. For better or worse, we can call this type of theory an *LF theory*. The thing that links the various proposals about LF in the literature and the myriad analyses of the LFs of particular sentences is the idea that a sentence's LF is grammatically real, a syntactic representation generated in a systematic way by the grammar and systematically related to *X*'s superficial form (its PF, say) via certain well-defined syntactic operations. And it is just *this* that Stanley is presupposing, effectively welding his central point, his definition of an unarticulated constituent, and his arguments against them, to the success of some LF theory or other.

It is one thing to posit a particular LF for a particular sentence and show how its existence could play an important rôle in explaining a certain phenomenon or datum of an interpretive nature. It is quite another to claim that there is *no possibility* of explaining the phenomenon or datum without positing the LF in question; for this is tantamount to a claim *about* syntax (and other things), a claim to the effect that only LF theories are viable. And of course it is precisely *this* claim that many linguists reject, particularly at Stanford. So Stanley's arguments must be aimed as much at syntacticians as at philosophers and cognitive scientists who

postulate unarticulated constituents, and it would be as well for him to acknowledge this. But it was precisely because Perry was *not* making major syntactic assumptions that he introduced unarticulated constituents in the way he did. And it is wrong of Stanley to say the notion of an unarticulated constituent as *he, Stanley*, defines it is the one “used by Sperber and Wilson (1986), Récanati (1993), and Bach (1994).” (2000: 409: n. 20).<sup>116</sup> Further, it is highly misleading to add that Crimmins (1992) is

substantially more cautious than the other advocates of unarticulated constituents. His target is not the view that all context-dependence is traceable to logical form, as I have presented this thesis, but the much more implausible view that contextual effects on truth-conditions are restricted to providing the values of expressions in the apparent structure of the sentence. Therefore, he should not be assimilated to my targets.

Stanley makes it clear that Perry *is* one of his targets:

A similar point does not hold of the article in which the vocabulary was introduced, Perry (1986), since, in his (1998), Perry is clear that the phenomenon of interest to him is what he calls a “truly unarticulated constituent”, which is not the value of an unpronounced item in the actual structure of a sentence (cf. his footnote 4). (2000: 409-10 n. 20).

However, Perry and Crimmins are both neutral on the vexed matter of the correct shape of a syntactic theory (see below) and the wedge between them that Stanley is trying to drive amounts to nothing.<sup>117</sup>

Let us turn now to Stanley’s discussion of Perry’s discussion of uses of (1):

(1) it’s raining.

Stanley errs at the outset by attributing to Perry a particular syntactic thesis about the logical form of (1). In setting out Perry’s argument for the presence of an unarticulated location in the proposition expressed by a use of (1), Stanley begins as follows:

Here is an argument for the existence of unarticulated constituents due originally to John Perry. Consider the sentence: [(1)] ‘It’s raining’ [example indented]. According to this argument, it is plausible that [(1)] contains a covert temporal variable, so that its true representation is more like ‘It is raining (*t*)’ [example indented] (2000: 414-5).

This is extraordinary. *Nowhere* in Perry’s discussions do we find him saying that (1) contains a “covert temporal variable”! Indeed, Perry’s initial assumption seems to be that (1) does *not* contain a covert temporal variable, as we can see from what he actually *says* rather than relying on Stanley’s reconstruction:

In order to assign a truth-value to my son’s statement [his use of (1) above], as I just did, I needed a place. But no component of his statement stood for a place. The verb “raining” supplied the relation *rains(t,p)*—a dyadic relation between times and places, as we have just noted. The tensed auxiliary “is” supplied a time, the time at which the statement was made. “It” does not supply anything, but is just syntactic filler. [Footnote omitted.] So Palo Alto is a constituent of the content of my son’s remark, which no component of his statement designated; it is an unarticulated constituent (1986: 206).

As far as propositional constituents are concerned, then, there is a contrast for Perry, between, on the one hand, the relation and the time, both of which are *articulated explicitly* by overt parts of the sentence uttered (the verb and the tense, respectively), and, on the other hand, the location which is *unarticulated*. Stanley’s claim that Perry talks about a “covert temporal variable” in his argument is false and liable to foster (a) the (false) impression that Perry is assuming an LF-theory of syntax that posits *some* covert/aphonic expressions, in particular covert temporal variables, and (b) the (false) impression that Perry’s argument for an unarticulated *location* of the proposition expressed by an utterance of (1) is meant to

demonstrate the existence of a propositional constituent corresponding to no location variable in (1)'s LF. Perry is clear in the passage just quoted that it is the *overt* tense of the verb that contributes a time to the proposition expressed. To see Perry as claiming that it is not this overt tense but some “covert temporal variable” that contributes the time is to engage in wild distortion.<sup>118</sup>

As to syntax, all Perry actually claims, as we saw earlier, is that (i) the proposition expressed by a use of (1) contains a location corresponding to no obvious component of (1), and (ii) that it is not *necessary* to see (1) as containing an aphonic (‘phantom’) locative expression in order to appreciate this point. The purported existence of an aphonic *temporal* variable in the LF of (1) plays no rôle whatsoever in Perry’s argument, and to claim it does is highly misleading.

Here is how Stanley sets out what he takes to be the second part of Perry’s argument:

But what an utterance of [(1)] asserts is not just that it is raining at a certain contextually provided time. Rather, it asserts that it is raining at a certain contextually provided time at a certain contextually provided place. But surely it is implausible to posit a place variable in addition to a temporal variable. It is surely more plausible to supply the place to the truth-conditions of an utterance of [(1)] directly, without mediation of a variable (2000: 415).

Here Stanley presents Perry as contrasting covert temporal and locative variables: “it is implausible to posit a place variable in addition to a temporal variable”; and he has Perry reasoning that it is “surely more plausible to supply the place . . . without the mediation of a variable.” This is all wrong: Perry is not postulating (or endorsing anyone else’s postulation) of one covert variable (a temporal one) whilst rejecting the postulation of another (a locative one). It simply will not do to portray Perry as making claims about LFs that might be refuted by appealing to more ideas about LFs.<sup>119</sup>

Stanley has a positive proposal, however, and he claims to have *syntactic* evidence for it, and against unarticulated constituents. But before getting to that evidence, we need to examine the general idea of indexical, locative aphonics.

## 15. INDEXICALS, VARIABLES, APHONICS

Let us abstract from matters of tense and time in order to focus on location. The idea we shall need to examine is that the LF of (1) contains, as Stanley claims, an indexical, locative, aphonic, which I shall call *loc* (italicization indicating aphoncity), that something like (1') is (1)'s LF:

- (1) it's snowing  
 (1') it's snowing *loc*.

This is pretty uninformative as to syntactic structure, of course, and I make no claim about the structure of the LF Stanley assigns to (1) since he says nothing about it—which is striking given that his thesis is basically a *syntactic* one. Of course, since *loc* is meant to be an empirical posit of the “actual syntactic structure” of the sentence we standardly represent as (1), there must be some empirical fact of the matter as to *where* in the sentence *loc* actually occurs for which there is some empirical evidence. For the sake of having something to work with, I assume, without prejudice, that *loc* is meant to be understood as occupying an argument position of ‘snowing’, so I have placed it after the verb in (1')—speaking linearly, and informally, it is where we would place ‘here’ or ‘in Reykjavík’.

Before we investigate the syntactic and semantic properties of *loc*, we need to get clearer about the general semantic background Stanley is assuming in his attack on Perry's unarticulated constituents. Here is Stanley's picture.

(a) The proposition expressed by a sentence  $X$  relative to a context  $c$  is a proposition determined by, and only by, two things: (i) the denotations relative to  $c$  of the elements of  $X$ 's LF, and (ii) a set of context-invariant compositional operations on these denotations, determined by, and only by, the structure of  $X$ 's LF.

(b) The effects of extra-linguistic factors on the proposition expressed by  $X$  relative to  $c$  are restricted to the provision of denotations to some fixed set of expressions that are 'context-sensitive' ('indexical', in a broad sense of the word), "primitive expression[s] whose denotation[s] [are] supplied entirely by context, perhaps guided by a linguistic rule" (2000: 400).

(c) Amongst these expressions are 'indexicals', in a narrow sense of the word, expressions possessing "the characteristics shared by such words as 'I', 'here', and 'now', but not by 'this', 'that', 'she', and 'he', such as resistance to bindability by variable-binding operators" (2000: 400).

(d) There are three types of overt expressions whose denotations are context-sensitive (indexical, in the broad sense):

First, there are expressions which are obviously indexicals in the narrow sense of the term, words such as 'I', 'here', 'you', 'now', and their brethren. Secondly, there are expressions which are obviously demonstratives, such as 'this' and 'that'. Third, there are expressions that are obviously pronouns, such as 'he' and 'she'. Overt expressions that are in none of these classes are not context-dependent (2000: 400).<sup>120</sup>

Now one can perfectly well accept (d)—assuming the notions of being "obviously" indexical, "obviously" demonstrative, and "obviously" pronominal can be given some content—without accepting Stanley's next claim:

(e) Any other type of context-sensitivity is attributable to the presence of aphonics in syntax:

If the truth-conditions of constructions containing [overt expressions that are in none of three classes mentioned in (d)] are affected by extra-linguistic context, this context dependence must be traced to the presence of an obvious indexical, demonstrative, or pronominal expression at logical form, or to a structural position in logical form that is occupied by a covert variable (2000: 400).

Thus Stanley reaches the following position:

(f) There are no unarticulated constituents of propositions expressed: "for each alleged example of an unarticulated constituent there is an unpronounced pronominal element in the logical form of the sentence uttered whose value is the alleged unarticulated constituent" (2000: 410).

Let us use the subscript  $n$  to indicate when we are using indexical in what Stanley calls the "narrow" sense (whatever this finally amounts to). It is perfectly coherent to maintain that: (i) no phonic is itself an indexical unless it is an indexical <sub>$n$</sub> , a demonstrative, or a pronoun; (ii) the LFs of at least some sentences contain aphonics; (iii) some of these aphonics are indexical; and (iv) not all potential differences in the propositions expressed by (or of the truth conditions of) distinct uses of a sentence  $X$  are attributable to the presence in  $X$ 's LF of phonic or aphonic indexicals to which different values are assigned on these different uses of  $X$ . Perry's proposal that distinct propositions may be expressed by distinct uses of (1) because

these propositions contain different unarticulated locations is compatible with (i)-(iv). Which is not to say Perry *has* to accept them: as I have stressed already, Perry is making no claims he thinks *syntacticians* need to examine. Only Stanley is doing that.

I am inclined to accept (i)-(iv). Specifically, I find (ii) and (iv) compelling, given the empirical evidence, and I see (i) and (iii) as plausible empirical hypotheses, well worth treating as true until we find evidence to the contrary. However, my saying this amounts to *very little* in the absence of clear *criteria* of what is involved in being indexical and in being indexical<sub>n</sub>, or at least in the absence of empirically explicable (but not necessarily finalized) *lists* of which expressions are indexical and which are indexical<sub>n</sub>. Without one or the other of these, accepting any of (i), (iii), or (iv) does not add up to much. More importantly for present concerns, nor do Stanley's claims (b), (d), and (e). Furthermore, claim (e) requires something else to give it serious content: an account of what it means to say that the occupant of a syntactic position in a sentence's LF is a *variable* (covert or otherwise), something that requires laying some syntactic cards on the table. And given that Stanley holds covert variables to be "bindable" by quantifiers, he will also need to tell us precisely what is involved, *syntactically and semantically* speaking, in a variable (covert or otherwise) being bound at LF, which will require laying down a few more syntactic cards, as well as some semantic ones.

Evidently, being an aphonic variable at LF has something to do with being a *pronominal* (rather than an indexical<sub>n</sub> or a demonstrative), for Stanley claims, recall, that "for each alleged example of an unarticulated constituent there is an unpronounced *pronominal* [my italics, SN] element in the logical form of the sentence uttered whose value is the alleged unarticulated constituent" (2000: 410). Stanley need not supply an entire syntactic theory, of course, but he does need to give us enough to justify talk of occurrences of *loc*, and talk of variables and variable-binding at LF. The aphonic *loc* is a real *expression* after all, so we need to be told *where* it occurs in a sentence that is alleged to contain it. And given that syntacticians have painstakingly investigated, for a quarter century or more, the syntactic constraints on binding that hold in natural language, we need to be told what syntactic constraints on binding Stanley is assuming if *loc* can function, as he claims, as a bound variable.<sup>121</sup> We also need to be told about the *interpretation* of LFs containing bound expressions: a simple pointer to a favoured account of the interpretation of binding in the first-order predicate calculus would certainly count, but notoriously all sorts of complexities are involved in effecting a simple mapping from the notion of binding assumed to be operative in the language of the calculus to one satisfactory for LFs of English sentences.<sup>122</sup> Postulating an expression that is aphonic may absolve one from saying anything about its *phonology*, but it does not absolve one from saying something with some content about its syntax and semantics!

Before Stanley's claims about *loc* can be given content enough to make them objects of serious examination, we need from him something substantial about *loc*'s syntactic category, its distributional properties, and its interpretation. And if the story about its interpretation involves the possibility of being *bound*, the syntactic questions take on a particular urgency as it is well known that syntactic structure places stringent conditions on binding possibilities. Remember we are not talking about semi-first-order, semi-English 'logical forms' used to explicate truth conditions of uses of English sentences, we are talking about posits of syntactic theory. Stanley leaves us in no doubt whatsoever that he sees himself as making *empirical* claims about the *actual* syntactic structures of English sentences. And this imposes an empirical burden: whenever he posits an aphonic element, Stanley must construe himself as

doing empirical work in *syntax* as much as anything else, as advancing a particular syntactic thesis for which he has syntactic evidence.<sup>123</sup> It simply will not do to terrorize philosophers with claims to the effect that their semantic or pragmatic proposals are incompatible with the empirical facts uncovered by syntacticians, whilst failing oneself to deliver the syntactic goods needed to justify such claims.

Remember, Perry is advancing no thesis in generative syntax. He is simply pointing out, labelling, and explaining the interpretive significance of the fact that there can be a constituent of the proposition expressed by a use of a sentence  $X$  to which no obvious or (at least uncontentious) component of  $X$  (or portion of a tokening  $X'$  of  $X$ ) itself corresponds. When the smoke has cleared, Stanley is *agreeing* with this and then making a vague syntactic suggestion which linguists may or may not consider worth turning into something of substance.<sup>124</sup>

The logical forms Stanley is talking about, and all of their components, are empirical posits of generative syntax for which there is meant to be syntactic evidence. This includes, of course, all *aphonics* and all components said to be variables capable of being bound by quantifiers. According to many LF theorists, there are plenty of aphonics in natural language that act like variables. This is, perhaps, most easily seen by examining the following:

- (2) everyone wanted [<sub>S</sub> Maria to sing]
- (3) everyone wanted [<sub>S</sub> everyone to sing]
- (4) everyone wanted [<sub>S</sub> — to sing].

In (2) and (3) we find the infinitival clauses ‘Maria to sing’ and ‘everyone to sing’ subordinated to the main verb. The subject of those infinitival clauses are ‘Maria’ and ‘everyone’, respectively. But where is the subject of the infinitival clause in (4)? It will not do, notice, to say (as was sometimes said by some linguists) that we have here a case in which the second occurrence of equivalent noun phrases is deleted, an idea that would incorrectly predict (4) to be equivalent to (3). (4) is naturally read as meaning *everyone x wanted x to sing*. This can be captured, and syntactic harmony can be nicely restored, if the infinitival clause in (4) is construed as having an aphonic expression in subject position functioning as a variable bound by ‘everyone’. Many linguists call this aphonic PRO:

- (4') everyone<sup>1</sup> wanted [<sub>S</sub>  $x_1$  to sing].<sup>125</sup>

We have here a simple example in which syntactic considerations suggest the presence of an aphonic, which semantic considerations welcome.<sup>126</sup>

The primary syntactic evidence for *loc*, according to Stanley, is the fact that it can be picked up and bound by quantifiers. And this just reinforces the point that Stanley needs to tell us precisely what is involved, *syntactically and semantically* speaking, in a variable (covert or otherwise) being bound at LF. In the present context, an informal appeal to a semi-English, semi-first-order representation containing a variable that is supposed to be doing the work of a purported aphonic in an English sentence  $X$  is only as good as the underlying assumptions about the relation between such a representation and the phrase marker that is  $X$ 's LF. The matter of what is involved in talk of variable-binding in LFs will be taken up later. Right now, let us try to get clear about what is involved in talk of indexicality.

## 18. NEITHER ‘HERE’ NOR ‘THERE’

It is all well and good to come up with examples of indexical and indexical<sub>n</sub> expressions, but one would like some understanding of *what is involved* in being an indexical and in being an indexical<sub>n</sub>, and what lies behind the existence of indexicals. First some seemingly small points



that will be important later. Stanley gives us a *partial list* of indexical<sub>n</sub> expressions: ‘I’, ‘here’, ‘you’, ‘now’, and their brethren (2000: 400); and a *necessary* condition on being indexical<sub>n</sub>: resistance to bindability by variable-binding operators (2000: 400).<sup>127</sup> We are not told which expressions are the “brethren” of ‘I’, ‘here’, ‘you’, ‘now’. Perhaps Stanley means to include the strict case variants ‘me’, ‘my’, and ‘your’. Perhaps also the absolute possessive forms ‘mine’ and ‘yours’. How about the reflexive forms ‘myself’ and ‘yourself’? (This would immediately raise issues about any adequate notion of binding—see below). And the number variants ‘we’, ‘us’, ‘our’, ‘ours’, and ‘ourselves’.<sup>128</sup> Are ‘there’ and ‘then’ brethren of ‘here’ and now’?<sup>129</sup>

Stanley explicitly excludes ‘this’, ‘that’, ‘he’ and ‘she’ from his list of indexicals<sub>n</sub>. This suggests he would be inclined to exclude ‘there’ (or posit two homophonic words, one an indexical, the other a variable). And what of ‘today’, ‘yesterday’, and ‘tomorrow’? They do not seem to be bindable, so perhaps Stanley would count them as brethren, or at least cousins, of the four words in his list.

What is involved in indexicality? The indexicals that dominate discussions in the philosophy of language are, in Russell’s (1940) language, *egocentric* or *perspectival*: they are used to present things (by which I mean at least objects, persons, times, and places) perspectively. There are all sorts of intricacies in this area that need to be taken into account in any adequate description of what I am trying to get at, but a few rough and ready remarks will suffice for present purposes. When a speaker refers to a location by uttering ‘here’ or ‘there’, in so doing he indicates some sort of *proximal* or *distal* perspective he has to it. (Which is not to say anything additional to the location makes it into the proposition he expresses.) Similarly when he refers to an object using ‘this’ or ‘that’. And similarly when the speaker uses ‘now’ and ‘then’ to refer to times, the distance now measured temporally rather than spatially. (The distal ‘then’ can be used to refer to a time past or a time future, and the tense of the accompanying verb is typically used to indicate the *direction*.) When a speaker uses ‘today’, ‘tomorrow’, or ‘yesterday’, he also *describes*, or perhaps *circumscribes* the distance.

Personal pronouns such as ‘I’, ‘you’, and ‘he’ are also used to indicate perspective. Reichenbach (1947) proposed to capture what he seems to have regarded as the locative flavour of these words by taking the utterance as a point of reference, yielding his ‘token-reflexive’ theory of indexicals.<sup>130</sup> More neutrally, we might say that when a speaker uses ‘I’ to refer to someone, in so doing he indicates the *perfectly proximal* perspective he has to that person, the *self* perspective. When he uses ‘you’ or ‘he’ to refer to someone, in so doing he indicates a perspective to that person that is *not* perfectly proximal, even when referring to himself (as he may). With ‘you’ this perspective gives rise to a *second-order* perfectly proximal perspective, this being the characteristic of second-person pronouns. With ‘he’ it does not. (Thus the hearer does not take the speaker to be referring to himself with ‘you’ or ‘he’ unless there is some special reason for him to be doing so.)<sup>131</sup> The gendering of third-person pronouns can be treated as a functional embellishment; similarly the gendering or numbering of second-person pronouns in those languages that avail themselves of these things.<sup>132</sup>

I am strongly inclined to conclude that indexical words are *essentially* perspectival, that perspective is the *hallmark* of indexicality. This appears to be Perry’s (1986) view, for he talks of just *two* ways in which an *articulated* constituent may get into the proposition expressed by an utterance of some sentence *X*. It is given either *directly* or *relationally* by the meaning of some component of *X*. More specifically, the meaning of a component of *X* is either of such a

nature that that it supplies the *same propositional constituent* on any occasion of use, or else of such a nature that it indicates the *same relationship to the speaker* on any occasion of use, different propositional constituents bearing the relationship in question to the speaker on different occasions of use (1986: 209). This is Perry's way of drawing the distinction between *eternal* and *context-sensitive*, and it seems that if an expression is context-sensitive that is because it is used to express some fixed relation to the speaker that different things may bear on different occasions.<sup>133</sup>

The perspectival nature of the expressions just mentioned appears to *explain* their indexicality in a way nothing else does. So whenever someone proposes treating a particular expression as an indexical, we do well to inquire into the perspective it indicates. Whenever we find an expression that is used to refer to different things on different occasions of use, we should always ask ourselves what it is about this expression that makes it behave in this way, and we should not be satisfied with the answer that it just does. With the indexicals just mentioned the answer is clear: they are designed for presenting things perspectivally, and if Kaplan (1989) and Perry (1979, 1986, 2001) are right, in a *direct* manner, i.e. without contributing perspectival or otherwise descriptive elements to the proposition expressed. In summary, we should be sceptical about any claim to the effect that an expression (phonic or aphonic) is indexical if the expression is not perspectival in some way. This is one reason I am deeply sceptical about "contextualist" accounts of the meaning of 'know'. The idea that this verb is indexical in some way makes a mockery of the idea of indexical expressions.

Having zero phonology would do nothing to reduce any mockery. Yet the idea of an indexical that lacks both perspective *and* phonic form (and which also fails to describe or name) is the heart of Stanley's syntactic jihad against unarticulated constituents. The alleged aphonic *loc* in (1) is *not* perspectival. Certainly it is not an aphonic version of 'here'. Suppose I am talking to Ken Taylor on the telephone. He is in his office at Stanford, sitting with John Perry. John asks Ken to ask me how the weather is in Reykjavík today. I respond to Ken's question with (1), then Ken uses the same sentence to report the news to John. Reykjavík is an unarticulated constituent of the proposition *I* expressed, and of the proposition *Ken* expressed. Now although Ken and I used the same sentence, viz. (1), there is no phonic indexical locative we could have *both* used in place of (or as well as) the purported aphonic. I would have had to use 'here', whereas Ken would have had to use 'there'. So neither 'here' nor 'there' is strictly synonymous with (has the same character as) *loc*, because the aphonic has the perspectival character of neither phonic. If Ken and I had wanted a common piece of English we could have used 'in Reykjavík' or 'where Stephen is'—hardly colloquial in the circumstances, but that is not the issue. But neither of these is synonymous with (identical in character to) *loc* either, because sentence (1) may be used to talk about somewhere *other* than Reykjavík or *other* than where I am (I may ask Ken how the weather is in Palo Alto, and he might respond with (1), using *loc* to refer to Palo Alto). It should be clear, then, that if there really is a locative aphonic in (1)'s LF, it differs from any extant *phonic* locative, indexical of English—and not just in being aphonic. There is no knock-down argument against the existence of *loc* here, just a serious worry: what would explain the existence of an indexical that lacks perspective (and phonology, to boot) and does not *name* or *describe* a location either?

Let that be our first question, then, for anyone who would posit *loc*: (i) How do we explain the existence of an expression that has no phonic properties and is used to refer to something in no particular way whatsoever? Further questions come straight to mind: (ii) Are there *perspectival* aphonic indexicals in natural language? If not, why not? (iii) Are there

aperspectival, *phonic*, indexicals? If not, why not? (iv) Is it just an accident that no *phonic* of English has the same meaning (character) as *loc*? Are there natural language that possess phonics with the same meaning as *loc*? If not, is there some deep reason for this? (v) Could we stipulate a new *phonic*, locative, indexical, ‘loke’, which could thrive in English as a synonym for *loc*? (vi) If so, would the occurrence of ‘loke’ in (1’’) occupy the syntactic node that *loc* is supposed to occupy in (1’)?

(1’’) it’s snowing loke.

(vii) Would (1’’) function just like its ‘loke’-free counterpart? If so, what would prompt the choice of one over the other? (viii) Would ‘loke’ allow of *doubling-up* the way ‘here’ and ‘in Reykjavík’ do in (5)?

(5) it’s snowing here in Reykjavík today

(6) it’s snowing loke here today

(7) it’s snowing loke in Reykjavík today.

Or, for that matter, *trebling-up*?

(8) it’s snowing loke here in Reykjavík today.

Location, location, location!

A good interpretive reason for the double-up in (5) was given earlier: ‘here’ presents a location from a perspective whereas ‘Reykjavík’ presents it by name, and ‘the capital of Iceland’ presents it by description.<sup>134</sup> So there is no communicative redundancy. One can straightforwardly convey information by uttering (5) that one would not straightforwardly convey by dropping ‘here’ or ‘in Reykjavík’. But *nothing* would be lost by dropping the aperspectival, adescriptive, anominal ‘loke’ in any of (6)-(8). No *communicative need* would be served by for the *phonic* ‘loke’. It is not used to describe, name, or signal a perspective, it is simply used to refer.<sup>135</sup> Recalling something I said earlier, ‘loke’ is useless by virtue of being too flexible, so to speak. All it has going for it is its phonology and the fact that is used to refer to a place. Draining it of its phonology does not improve matters, of course, and the product is just *loc*. This might well make one wonder whether any communicative need is served by the purported *aphonic loc*, with which ‘loke’ was supposed to be synonymous. That a location is a constituent of the proposition expressed by an utterance of (1) is something signalled by the use of the verb ‘snow’ with its standard meaning. *All* of the work seemingly done by ‘loke’ and *loc* has been done already by the weather verb; ‘loke’ and *loc* are useless.

The idea of expressions with *phonic* properties but no communicative utility is not hard to get one’s mind around. Nor is the idea of expressions with communicative utility but no *phonic* properties. But the idea of expressions with neither communicative utility nor *phonic* properties? The idea is strained. We are involved in an empirical enterprise, so we cannot prejudge the issue, of course. Nonetheless, the default assumption should *not* be that there *are* such expressions. The reasoning here is Chomskyan: the logical problem of language acquisition becomes more tractable the more we can narrow the range of options (up to a limit of course), the more narrowly constrained linguistic theory becomes, whether we are talking about options involving syntactic categories, syntactic operations, parameters, levels of representation or whatever.<sup>136</sup> So, *ceteris paribus*, we should posit such things, as far as is possible, only when there are strong empirical reasons for doing so, when doing so appears empirically unavoidable or narrows other options. If we are going to posit expressions with *phonic* properties but no communicative utility, this should be because we have been led to

them by strong empirical considerations, not simply because the idea of such expressions is not itself incoherent. Knowledge of the meaning of the verb ‘snow’ is enough to signal that a location is involved in a use of (1)—it expresses a relation between times and places after all. So if there really is an aponic *loc* in (1), its existence will have to be justified on *syntactic* grounds, and that means getting clear about its syntactic category, its binding properties, the node it occupies and how this node stands to those occupied by ‘here’ and ‘in Reykjavik’ in (5).

Notice that I have been talking about expressions with neither *communicative utility* nor phonic properties, not expressions with neither *semantic properties* nor phonic properties. The latter appear to be ruled out on minimalist assumptions (according to which an expression is something that has a role at LF or PF, often enough both). To claim that *loc* has no communicative utility is not to claim it has no *semantic* properties. By hypothesis it does: it is used to refer to locations, and its use contributes a location to the proposition expressed. At least that is Stanley’s idea. The point I am making is just this: given that ‘rain’ and ‘snow’ express dyadic relations between times and places, and given that *loc*, if it exists, indicates nothing of a *perspectival*, *nominal*, or *descriptive* character, why think it is in virtue of the assignment of a value to such an expression that the proposition expressed by a use of (1) contains a location as a constituent? Surely the null hypothesis should be that the use of the verb ‘snow’ demands a location, given what it means, just as Taylor (2001) suggests. Nothing is gained by the presence of *loc*, unlike by the presence of ‘here’ or ‘there’ or ‘in Reykjavik’ or ‘in the capital of Iceland’.

The general point can be reinforced with the help of a quick thought experiment, the full morals of which will emerge later. Suppose we were to find a dialect of English that contained a singular term not found in our own dialects, ‘pers’. We notice speakers of this dialect using sentences like the following:

- (9) pers is here
- (9’) give it to pers
- (9”) have you seen pers’s new shoes?

When we ask about ‘pers’, a speaker who uses it tells us it is a singular pronoun, an indexical that is used to refer to persons of either gender. Great, we think, a third-person pronoun, neutral as to gender. Then we hear him use two more singular terms with which we are unfamiliar, ‘mers’ and ‘fers’. We ask him about them, and he says they are the masculine and feminine versions of ‘pers’. We are baffled and say to him that we find this rather odd, given that they have ‘he’ and ‘she’ (and ‘him’ and ‘her’) in their dialect, and given that they seem to use them just as we do. Now it’s *his* turn to be baffled; he tells us ‘he’ and ‘mers’ are not synonyms; and that ‘she’ and ‘fers’ aren’t either. Before we can follow up, one of his friends, A, arrives, and the following conversation takes place:

- A: Hi, Bob, how is mers?
- B: Fine thanks. And fers?
- A: Fine, thanks. And your wife?
- B: Fers has a bad cold.
- A: Pers is sorry to hear that. Has mers had one too?
- B: No, I’ve been fine. Mers didn’t catch fers’s cold.

We go over the conversation together and finally we see what's going on: 'pers' is not only neutral as to gender, it is also neutral as to *person*. So are the gendered 'mers' and 'fers'. They lack *perspective*.

We are not going to find a dialect of English containing 'pers' of course; not because such a dialect is logically impossible, but because phonic indexicals lacking perspective are useless. Even the gendered 'mers' and 'fers' are pretty useless. To be sure, the referent of a use of 'mers' has to be (or at least be presumed to be) male, but for a language like English which has *personal* indexicals like 'I', 'you', and 'he', there is going to be no call for impersonal ones.

Let us push this to the limit: a wholly aperspectival indexical that can be used to refer to anything whatsoever. Useless.

Now let's bring predicates into the picture. Forget about perspective for a moment. If a language contains wholly indexical singular terms and wholly indexical one-place predicates, then it contains wholly indexical sentences. Suppose we came across a dialect of English that had such expressions and so had a simple subject-predicate sentence that is wholly indexical, a sentence composed of a wholly indexical singular term 'i' and a wholly indexical predicate 'f' (pronounced like the letters "i" and "f" in the word "if"):

(10) [s<sub>[DP i]</sub>][<sub>[VP f]</sub>].

We, who have just come across 'i' and 'f' for the first time, ask a speaker of this dialect to explain their meanings (characters) to us. He says that 'i' can be used to refer to any type of object whatsoever, male or female, animate or inanimate, concrete or abstract. We think we are close to having 'i' under control: it is synonymous with either 'this' or 'that', but its use appears to lack the rudeness that accompanies some uses of 'this' and 'that' when used in connection with people (unless we add a nominal, as in 'that man'). I say as much to our speaker, and he says that I am wrong, that the whole point of 'i' is that it is less constraining than 'this' or 'that', that it involves no proximal or distal locative perspective. It is wholly aperspectival. Then he tells us about the predicate 'f': it can be used to express any property whatsoever. Furthermore, it is also wholly aperspectival. So, on one occasion a speaker might use (10) to say that London is pretty, on another to say that Paderewski is musical; on one occasion to say that he is feeling ill, on another to say that he is feeling much better; and so on. Would we say these people are unbelievably brilliant or unbelievably stupid? Surely (10) is so useful that it is useless; its versatility is its downfall, since it can be used to say anything that can be expressed in subject-predicate form. One may as well grunt. Indeed, I hereby decree my grunts synonymous with (10). Ludicrous of course.

Now let's take away the only thing 'i' and 'f' have going for them: their phonology. That is, replace them with aphonics *i* and *f*. Surely we have reached an absurd terminus: an aphonic, aperspectival wholly indexical singular term and an aphonic, aperspectival wholly indexical predicate. It is hard to imagine two linguistic expressions put together to form a more useless expression than (11).

(11) [s<sub>[DP *i*]</sub>][<sub>[VP *f*]</sub>].<sup>137</sup>

Let us return to example (5), which brings up another question:

(5) it's snowing here in Reykjavík today.

Are people who hold that every constituent of the proposition expressed by a use of a sentence *X* is the value of some item in *X*'s LF attracted to the converse: that on a use of *X*, every item

of  $X$ 's LF has a value that is a constituent of the proposition expressed by a use of  $X$ ? (Put aside obviously pleonastic occurrences of words such as 'it' in 'it's raining', and 'there' in 'there's a fly in my soup'.) On the face of it, a traditional compositional semantics will say that, relative to my use of (5) now, or relative to a context with me as speaker and Reykjavík as location, Reykjavík is the referent of *both* my use of 'Reykjavík' and my use of 'here'. Does that mean Reykjavík itself occurs *twice* in the proposition expressed? If 'here in Reykjavík' is itself a syntactic constituent of (5)—I have no firm opinion on this matter—then perhaps it too has Reykjavík as its value on this use. Would this be the product of composition, the value of 'here' (Reykjavík) combining with the value of 'in Reykjavík' (Reykjavík) to produce the value of 'here in Reykjavík' (Reykjavík)? What then of the alleged aphonic *loc*? Does it have its own special position in syntax that no phonic may occupy? If so, then on the hypothesis at hand would it require a value not only on my use of (1) but also on my use of (5)? Would Reykjavík get into the proposition once, twice, three times, four times, or five times? On Stanley's account, all of these appear to be live options until enough is said about (a) the LF of (5), and (b) the ways in which the compositional instructions associated with its structure determine the proposition expressed by a use of (5), to eliminate some of them.

What all of this brings out yet again is the need to say *something* about the "actual syntactic structure" of sentences containing weather verbs if one is going to claim that they contain the aphonic *loc*. Is *loc* an *argument* of a weather verb (does it occupy an argument position of the verb)? Is the position *loc* occupies one that may be occupied by a phonic? Can it be occupied by 'here in Reykjavík'? Or does *loc* itself appear in (5) *alongside* 'here in Reykjavík'? Or as *part* of it? One cannot simply ignore these questions. They are cries for enlightenment on how *loc* is meant to fit into syntactic and semantic theory, and a reminder that it is doubly egregious to claim that Perry and others who have posited unarticulated constituents argue as follows:

First, some linguistic construction is provided whose truth-conditional interpretation is mediated by context. Then, it is argued that it is inconsistent with current syntactic theory to postulate, in the logical form of the relevant construction, expressions or variables the semantic values of which context could provide (Stanley, 2000: 398).

First, this is decidedly *not* what Perry and company do. Second, Stanley doesn't actually tell us what syntactic theory declares or what syntactic structures he himself is assuming in giving his own analyses of the weather sentences Perry discusses. As far as Stanley's proposal that there is an aphonic *loc* in (1)—and, presumably, in (5)—is concerned, we are completely in the dark on all syntactic and semantic matters of substance, and as such we cannot construe it as a serious contribution to syntactic or semantic theory. All we have been given is a handful of semi-English, semi-first-order representations, some containing quantifiers and variables, representations which may illuminate the truth-conditions of uses of sentences (1) and (5) for those who are in some doubt about them. No sermon about "actual syntactic structure" that is "revealed by empirical inquiry" is needed to do *that*.

Until the syntax and semantics of *loc* are spelled out, claims to have provided syntactic evidence for its existence must be taken with a large grain of salt. If there is syntactic evidence for *loc*, probably it will not revolve entirely around the syntax of weather *verbs*. Consider:

- (12) there will be more snow/rain tomorrow
- (13) tomorrow will be a windy/rainy/foggy/cloudy/overcast day.

The philosopher who goes along with Perry and Taylor explains why the propositions expressed by utterances of (12) and (13) are location-involving as follows: raining is a binary relation obtaining between times and places, and the verb ‘rain’, the noun ‘rain’ and the adjective ‘rainy’ are devices for expressing this relation in verbal, nominal, and adjectival ways, hence the propositions expressed by uses of sentences containing these expressions will contain a location.<sup>138</sup>

If every component of the proposition expressed by an utterance of *X* is the value of some syntactic object in *X*’s LF, presumably we will find *loc*—or at least something that does the sort of work *loc* is meant to do—in the LFs of (12) and (13). Where it would occur is not obvious. Since I placed it after the verb ‘snow’ in (1), I shall place it after the weather noun or adjective here:

- (12’) there will be more snow/rain *loc* tomorrow
- (13’) tomorrow will be a windy/rainy/foggy/cloudy/overcast *loc* day.

And this would mean that *loc*—or whatever the purported aponic is—is not always the occupant of the argument place of a *verb*. Similar considerations apply to the following:

- (14) it’s cold/hot/humid/sticky
- (15) it’s dark/light already
- (16) it’s noon/midnight
- (17) I rise at dawn/I enjoy a martini at sunset.

Would the following be close to the LFs of (14)-(17)?

- (14’) it’s cold/hot/humid/sticky *loc*
- (15’) it’s dark/light already *loc*
- (16’) it’s noon/midnight *loc*
- (17’) I rise at dawn *loc*/I enjoy a martini at sunset *loc*.

All of this might suggest to the *loc*-theorist that a generalization is being missed, that the aponic in a weather sentence is the product of a rather general fact about sentence structure, perhaps about *verbal* structure: the most basic function of language is to express thoughts about things at times and places, and as such a basic sentential frame comes with an intrinsic, aponic temporal indexical and an intrinsic, aponic locative indexical, *loc*.<sup>139</sup>

But there are problems down this road. First, Taylor’s (18) would now contain *loc*, uses of the sentence evaluable for truth or falsity only when some particular location is its value:

- (18) Laura danced the tango all night last night.
- (18’) Laura danced *loc* the tango all night last night.

And that, as we saw earlier, is plain wrong. The mere fact that every dancing takes place at a time and at a place does not mean a location is a constituent of the proposition expressed by a ‘dance’ sentence.<sup>140</sup>

Second, there are all sorts of sentences that are used to talk about things that do not, as a matter of their metaphysical nature, involve specific locations:

- (19) lead is heavier than copper.

I suppose both problems could be solved by brute force, existential closure for (18), and universal closure for (19), *loc* functioning as a variable:

- (18’’) ( $\exists loc$ ) Laura danced *loc* the tango.

(19") ( $\forall loc$ ) lead is *loc* heavier than copper.

We appear to have reached the following position. (i) Stanley (2000) claims that every constituent of the proposition expressed by (or the truth conditions of) a use of a sentence *X* is the value of some expression occurring in *X*'s LF. (ii) He agrees with Perry (1986) that the proposition expressed by (or the truth conditions of) a use of (1) contains a location, and hence, by (i), that the LF of (1) contains an expression, the use of which on a given occasion refers to a location. (iii) This can be intended as no more than a thesis in generative syntax. (iv) But Stanley gives us no information about what he calls the "actual syntactic structure" of (1) beyond claiming that it contains *loc*; and yet he claims to have empirical evidence for what the actual syntactic structure of (1) is, for he claims to have syntactic evidence that it contains *loc*. (v) What all of this means is that when we come to evaluate the argument Stanley thinks he is using to undermine Perry's proposal, we are going to be examining an argument based on Stanley's syntactic evidence for the actual syntactic structure of (1), a syntactic structure he fails to provide. (vi) If *loc* really exists, it is a strange type of indexical: not only is it aphonetic, it is aperspectival. It is used to refer to a location in no particular way whatsoever. Unlike the indexicals 'here' and 'there', it indicates no perspective; unlike 'Reykjavik', it is not used to refer in the way a name is; and unlike 'the capital of Iceland' it is not used to pick out a location by description. To boot, you can't hear it.

Does this mean it is pointless examining Stanley's *argument*? No. We know already that without an account of the LF of (1) the argument can have no conclusion with real empirical content. But there is a very important lesson to be learned from looking at its confused initial premise.

## 16. BINDING AND RELATIVIZATION

The principal argument Stanley uses against Perry's unarticulated constituent analysis of the interpretation of utterances of (1) takes off from a warm-up argument involving the relativized interpretation of utterances of (2):

- (1) It was raining
- (2) everywhere I went, it was raining.

We can render reasonably transparent the relativized interpretation of (2) using the semi-formal, semi-English (2'):

- (2') [every *x*: location *x*: I went to *x*] it was raining in *x*.

The two main assumptions in Stanley's warm-up argument are these:

(a) The *mere existence* of this reading of (2) demonstrates conclusively that the sentence involves "implicit binding", which means it contains an aphonetic variable in syntax, call it *loc*, bound by 'everywhere I went last week' in (2)'s LF:

- (2") [everywhere I went]<sup>1</sup> it was raining *loc*<sub>1</sub>.

Implicit binding means *explicit* binding, as it were, at LF.

(b) If there is a variable *loc* bound by 'everywhere I went' in (2)'s LF, *loc* must also appear in (1)'s LF. Whereas it is bound in (2)'s LF, it is free in (1)'s LF and so interpreted as an indexical. (The same aphonetic device, *loc*, may occur as an indexical or as a bound variable.)

Assumption (a) is not a claim about how best to capture the truth-conditions of a use of (2), remember, but an *empirical* claim about the "actual syntactic structure" of (2), to be revealed



by empirical work in syntax. And Stanley claims to have syntactic evidence for his syntactic claim.

There are three immediate problems here.

(i) Throughout, Stanley conflates two distinct notions, *variable-binding* and *relativization*. There is no intrinsic connection between these notions. Relativization is a purely *interpretive* phenomenon. Variable-binding is a phenomenon with both *interpretive* and *syntactic* dimensions. Most importantly, variable-binding is neither necessary nor sufficient for relativization. Variable-binding is no more than a method that has been used in the explication of certain forms of relativization. Hence assumption (a) is false.<sup>141</sup>

(ii) Since Stanley claims to be mounting an argument against Perry which appeals to variables and binding at LF, then the notion of binding he appeals to had better be one whose domain of operation is LF.<sup>142</sup> This means specifying the LF of (2) and the syntactic constraints on binding that well-formed LFs must satisfy. Stanley specifies neither, for he does not say what syntactic category *loc* belongs to, *where* in (2)'s LF it occurs, whether or not it falls under the Binding Theory (and if so, under which principle it falls), whether it bears case, or whether the quantified expression 'everywhere I went' binds *loc* from a position to which it has been raised (by, e.g. Quantifier Raising; see below). We get no details about (2)'s LF beyond the vague claim that it contains *loc*.

(iii) The third problem, which I am less concerned with here, is raised by Récanati (2001). What reason is there, Récanati asks, to think assumption (b) is true? It seems to presuppose that the LF of (1) is a constituent of the LF of (2). But it could well be that it is the presence of the quantified expression 'everywhere I went', which occurs as a sentential operator in (2), that triggers the appearance of a variable in (2)'s LF. Since (1) does not contain such an operator, no such variable is generated. Hence assumption (b) is false. For the sake of argument, let us just accept assumption (b), and so ignore problem (iii).

(i) Stanley claims to have syntactic evidence for the claim that (2)'s LF contains an aphonic variable *loc* bound by 'everywhere I went'. But in fact the evidence offered is *purely interpretive*: the mere existence of the undisputed, relativized interpretation of (2)! Surely no-one is going to argue with the well-known *interpretive* fact that (2) has a relativized interpretation. The question is whether anything of *syntactic* significance follows immediately from this. Stanley assumes without argument that it does.

If one's conception of the logical forms of English sentences is just of formulae in some semi-English, semi-formal language that can be used to explicate truth-conditions and perhaps even a few aspects of truth-conditional structure, a language that draws upon certain devices and structural features of formulae of the predicate calculus, one is naturally going to produce 'logical forms' in which the relativization introduced by quantified expressions of English is captured using formulae containing bound variables. We should take care here to distinguish broader and narrower notions of *variation* associated with quantificational expressions. Variation is exemplified in (3):

(3) every man danced with some woman.

On the surface at least, (3) contains quantifier phrases in the argument places of the verb 'dance'. There is a reading of (3) upon which women may *vary* with men, a reading upon which men are selected before women, so to speak, a reading upon which, as we say in the trade, 'every man' has large scope. In the predicate calculus representation of this reading—

there is more than one such representation, of course—we find bound variables in the argument positions of the predicate:

$$(4) \quad (\forall x_1)(\text{man } x_1 \supset (\exists x_2)(\text{woman } x_2 \bullet x_1 \text{ danced with } x_2)).$$

But it does not follow from the fact that we have developed an artificial language within which we can capture the truth conditions of (one reading of) some English form  $X$  with an unambiguous and otherwise well-behaved formula, that we have thereby uncovered the (or a) phrase marker for  $X$ , generated by the syntax of English posited by our best syntactic theory.

It is quite common in linguistics and philosophy to produce formulae in artificial languages that more closely reflect potential phrase markers of the English sentences they are meant to semantically illuminate than formulae of the predicate calculus. One way of doing this is to replace the unrestricted unary quantifiers by restricted quantifiers headed by quantificational determiners as in (3') (suitable semantic axioms being provided, of course):<sup>143</sup>

$$(3') \quad [\text{every } x_1: \text{man } x_1] [\text{some } x_2: \text{woman } x_2] (x_1 \text{ danced with } x_2).$$

Again, the argument positions of the predicates are occupied by variables. But it does not follow from the mere fact that we have developed a niftier way of capturing truth conditions of (one reading of) (3) with an unambiguous and otherwise well-behaved formula of a modified formal language containing restricted quantifiers (call the language  $RQ$ ) that we have *thereby* uncovered the actual syntactic structure of (3). (Would that it were this easy to refute variable-free semantics!)

Many syntacticians who accept the LF hypothesis take (3)'s LF (on the reading we have been assuming) to be something that (3') usefully approximates, with something closer to (3'') giving the structure of the LF in question:

$$(3'') \quad [s_{[DP \text{ every man}]}]^1 [s_{[DP \text{ some woman}]}]^2 [s \ e_1 \text{ danced with } e_2]]].$$

Here, the quantifier phrases are “raised”, by which is meant (roughly) that they occupy syntactic positions from which they behave semantically like the restricted quantifiers in (3'), binding the occurrences of  $e$ , which behave as variables. If, as many LF theorists (myself included) maintain, a sentence is best seen as a pair consisting of a PF and an LF, then  $\langle (3), (3'') \rangle$  is a sentence. One simply cannot tell whether Stanley goes along with this as he provides no syntactic details for the ‘logical forms’ he wields against Perry.

The point of immediate interest is that the LF (3'') contains variables which do not appear at PF, the positions the variables occupy at LF being occupied by the quantifiers themselves at PF, almost as if the quantifiers have descended and smothered their respective variables.<sup>144</sup> But not all syntacticians see things this way, for there are those—particularly at Perry’s institution—who see surface syntax as good enough for semantic interpretation, and there are plenty of accounts of the semantics of (3) that produce readings equivalent to (3') without treating (3) itself as containing any variables in its syntax, so it is hardly a *given* of syntactic theory, an established empirical fact, that there are variables in the syntax of (1). I myself am rather attracted to the LF hypothesis, but I am not going to start telling syntacticians who *aren't* that the empirical facts refute them! And rather more to the present point, I am not going to start terrorizing philosophers with exaggerated claims to the effect that their postulations of unarticulated constituents fly in the face of empirically established syntactic facts discovered over in the linguistics department!

It is, perhaps, *closer* to a given of syntactic theory that there is a variable in the syntax of (5) on the reading given by (5'):

- (5) every man danced with some woman he knew  
 (5')  $[every\ x_1: man\ x_1] [some\ x_2: woman\ x_2 \bullet x_1\ knew\ x_2] (x_1\ danced\ with\ x_2)$ .

For it seems to be held by almost everyone who cares about these matters that the occurrence of the pronoun 'he' in (5) must have some semantic rôle or other, and that when (5) is understood with truth conditions captured by (5') that rôle is exhausted (or close to exhausted) by its acting as a variable bound by 'every man'.<sup>145</sup> Even many theorists who want their semantics to run off surface syntax and those with no particular interest in LF are tempted to see *this* particular form of variation as explained in part by the presence in the surface form of an ordinary English phonic, 'he', that acts as a bound variable. (This was the view of Quine (1960) and Geach (1962), of course, long before talk of the syntactic level LF.)

The type of variation exemplified in (5) is what I have elsewhere called *relativization*.<sup>146</sup> In *RQ* representations of truth conditions, the characteristic feature of relativization is the presence in one quantifier of a variable bound by a higher quantifier. It is this that formally captures the relativization in *RQ*. And, in the particular example we are considering, the relevant variable in (5') corresponds directly to the pronoun 'he' in (5).<sup>147</sup> The LF theorist might offer something akin to (5'') as the official LF of (5):

- (5'')  $[s[DP\ every\ man]^1 [s[DP\ some\ woman\ he_1\ knew]^2 [s\ e_1\ danced\ with\ e_2]]]$ .

The point I wish to stress here is well-known but rarely stated explicitly: although relativization can be represented in *RQ* using bound variables, there is no intrinsic connection between variable-binding and relativization. The binding of a variable in natural language syntax is neither necessary nor sufficient for a relativized interpretation.

That it is not *sufficient* is easily demonstrated. Wherever we find a sentence *S* containing a pronoun whose interpretation appears to be well-explained on the assumption that it functions as a variable bound by a quantifier, we can replace the quantifier in question by a name (or some other singular term) to produce a sentence *S'* in which the interpretation of the pronoun is well-explained on the assumption that it functions as a variable bound by the name in *S'* corresponding to the quantifier in *S*. Consider,

- (6) every man loves himself  
 (7) Ringo loves himself.

A naïve answer to the question of how the pronoun functions in the singular case (7) is that it is co-referential with 'Ringo', that it is a special type of referring expression whose reference is determined by 'Ringo'. But something is missed on such an analysis. Surely 'himself' functions *identically* in (6) and (7), a single closed predicate 'loves himself'—understood as  $\lambda x(x\ loves\ x)$ —occurring in both sentences.<sup>148</sup> That is, in effect (6) and (7) are both used to make claims involving the following condition  $x\ loves\ x$ . (6) is used to say the condition is true of every man, and (7) to say it is true of Ringo. So if the occurrence of 'himself' in (6) is functioning, in some way to be elucidated, as a bound variable, shouldn't we at least countenance the idea that the occurrence in (7) is functioning in this way (rather than as a device of co-reference)?<sup>149</sup> Arguably, this would explain the immediacy of the following inference:

- (8) every man loves himself; Ringo is a man; so Ringo loves himself.

Examples involving propositional attitudes and VP-deletion appear to confirm the need for singular, non-relativized binding, as we can see by examining bound possessives. Consider (9) and (10):

- (9) every man loves his wife  
 (10) Ringo loves his wife.

On one use of ‘his’ it is a device of anaphora, bound by ‘every man’ in (9). And if the singular binding hypothesis is correct, there is a reading of (10) upon which ‘his’ is bound by ‘Ringo’. (9) and (10) are used to make claims involving the condition  $x$  loves  $x$ ’s wife.<sup>150</sup> (9) is used to say it is true of every man; and (10) to say it is true of Ringo, the common predication being  $\lambda x(x$  loves  $x$ ’s wife). Arguably, this that explains the immediacy of the following inference:

- (11) every man loves his wife; Ringo is a man; so Ringo loves his wife.

So if ‘his’ is really functioning as a bound variable on one reading of the quantified example (9), shouldn’t we at least countenance the idea that it also functions in this way, rather than as a device of co-reference, on one reading of the singular example (10)?<sup>151</sup> Evidence that this is correct comes from reflecting on possessives in attitude contexts.<sup>152</sup> Suppose we embed (9) and (10) under ‘Mary thinks’:

- (12) Mary thinks [every man]<sup>1</sup> loves his<sub>1</sub> wife  
 (13) Mary thinks Ringo<sup>1</sup> loves his<sub>1</sub> wife.

The bound variable treatment of the pronoun in (12) delivers a reading we can represent in RQ with (12’):

- (12’) *Mary thinks* ([every  $x$ : man  $x$ ] ( $x$  loves  $x$ ’s wife)).

This captures the fact that a use of (12) is true (on one of its readings) if, and only if, Mary thinks every man is an own-wife’s lover. The analogous reading of a use of (13) is true iff Mary thinks Ringo is an own-wife’s lover. But that reading is *not* captured by saying that ‘Ringo’ and ‘his’ are co-referential. For on such an account the use of (13) could be true if Mary believes that Ringo loves the wife of some man she sees but does not realize is Ringo.<sup>153</sup> So even if ‘his’ can be used as a device of *de jure* co-reference, we still appear to need to take into account its use as a bound variable, which means we have variable-binding without relativization.

The case of VP-deletion provides further confirmation. The literature on VP-deletion is vast and consensus is not easy to find, but traditionally deletion is subject to a stringent parallelism condition on form and interpretation.<sup>154</sup> As Heim and Kratzer put it, “A constituent may be deleted at PF only if it is a copy of another constituent at LF” (1998: 250), moreover a copy *interpreted in the same way*.<sup>155</sup> Consider (14):

- (14) Ringo loves his wife, and Paul does too.

There are two quite distinct readings of (14) because the second conjunct may be interpreted as either (15) or (16):

- (15) *Paul*( $\lambda x(x$  loves  $x$ ’s wife))  
 (16) *Paul*( $\lambda x(x$  loves Ringo’s wife)).

The former is usually called the *sloppy* reading, the latter the *strict* reading. If a constituent may be deleted only if it is a copy of another co-interpreted constituent at LF, the existence of the sloppy reading of (14) would appear to provide good evidence for a reading of the second

conjunct of (14) upon which its VP is interpreted as  $(\lambda x(x \text{ loves } x's \text{ wife}))$ , and this means treating 'his' as a bound variable, which means we have variable-binding without relativization.

That variable-binding in natural language syntax is not *necessary* for relativized interpretations is also well-known and easy to demonstrate. Indeed, this fact forms the basis of a whole style of *variable-free* semantic theorizing. Famously, Quine (1960) presented an insightful way of reformulating the first-order predicate calculus without variables, and the method may be generalized.<sup>156</sup> In the study of natural language, variable-free systems have been developed by Szabolcsi (1989), Jacobsen (1999), and others.<sup>157</sup> Unless Stanley can produce an incoherence argument against variable-free theories, their existence demonstrates that the existence of relativized readings of natural language sentences does not in and of itself entail variable-binding in natural language *syntax*.<sup>158</sup>

Even in the work of those who are perfectly accepting of variable-binding in natural language syntax, we find relativization without variable-binding. Classic examples are found in discussions of donkey anaphora, where we find pronouns lying outside the scopes of the quantifiers upon which they are anaphoric, and hence incapable of being bound by those quantifiers. In order to appreciate the relevant examples, first consider (17) and (18), in which the anaphora involves a pair of sentences, i.e. in which the expressions anaphorically linked appear in distinct sentences linked with a connective:

- (17) John bought *exactly one donkey*, and Paul vaccinated *it*  
(18) If John buys *exactly one donkey*, then he pays cash for *it*.

As Evans (1977) points out, construing the pronouns in these examples as variables bound by the quantified DPs upon which they appear to be anaphoric, by giving the quantifiers large scope, yields the wrong results. Someone who utters (17), for example, would not be claiming that only one donkey satisfies (19):

- (19) *John bought  $x$  and Paul vaccinated  $x$ .*

For that claim is consistent with John buying two donkeys, while the claim made by uttering the original conjunction in (17) is not.

The reason the pronouns are not bound by the quantifiers upon which are anaphoric, says Evans, is that the pronouns are not within the quantifiers' scopes, those scopes being restricted to the embedded sentences containing the quantifiers.<sup>159</sup> On Evans's account, the pronouns in (17) and (18)—and, indeed, all others apparently anaphoric on quantified expressions that do not bind them—form a natural group in *having their references fixed rigidly by descriptions*, singular or plural as the case may be. In (17), for example, 'it' has its reference fixed by the 'the donkey John bought'; and in (18), 'it' has its reference fixed by 'the donkey John buys.' Evans calls such pronouns E-types.<sup>160</sup> Evans's theory assumes something that is surely correct: the hearer can readily comprehend a particular use of the superficially simple 'it' as having its reference fixed by the rather more complex expression 'the donkey John bought', for example.

Examples (17) and (18) do not themselves involve relativization, but one does not have to look far in Evans's own discussion (or in the vast literature it has spawned) to find examples that do. If a use of the pronoun 'it' may have its reference fixed by non-relativized description 'the donkey John bought', surely we are going to find examples in which a use of 'it' has relativized reference, i.e. reference fixed by a relativized description such as 'the donkey he

bought'. Indeed, they are not hard to find, for being in a distinct *sentence* from a quantifier is not the only way for a pronoun to fall outside the quantifier's scope. It can lie outside by virtue of lying in a distinct VP, as in (20), where two VPs are conjoined by 'and':

(20) every man owns exactly one donkey and feeds it at night.

Or by lying in the VP of a main clause when the quantifier lies in the VP of a relative clause:

(21) every man who owns exactly one donkey feeds it at night.

Again, giving 'exactly one donkey' large scope and construing 'it' as a variable it binds yields the wrong result in both (20) and (21) (and in countless others). Someone uttering (20) would not be saying that exactly one donkey satisfies *every man owns x and feeds x at night*. And someone uttering (21) would not be saying that exactly one donkey satisfies *every man who owns x feeds x at night*. In both cases, the pronoun 'it' is not bound by its purported antecedent, 'exactly one donkey', because it does not lie within the purported antecedent's scope. On Evans's E-type account, in uses of (20) and (21) 'it' has its reference fixed by the description 'the donkey he owns', the interpretation of 'he' relativized to objects that 'man' is true of in the use of (20), and objects that 'man who owns exactly one donkey' is true of in the use of (21). So although the occurrences of 'it' in (20) and (21) are not themselves bound, interpreting them still involves recognizing relativization, because the interpretation of 'he' in the description that fixes the referent of 'it' is relativized to other items.

For present concerns, the important point here is that although Evans presents a theory that is meant to deliver the correct relativized readings of (20) and (21), he makes no claim about the existence of a variable in the underlying syntactic structures (or 'logical forms') of (20) or (21) that corresponds to 'he' in the reference-fixing description 'the donkey he owns', a variable that is bound by the subject quantifier.<sup>161</sup> Nor do those philosophers who claim that Evans's E-type pronouns are in fact D-type pronouns, i.e. pronouns that *go proxy for descriptions* (rather than having their references fixed by them) and, as such, can be viewed as limiting forms of incomplete descriptions.<sup>162</sup> Consider the following progressions:

(21) every man who owns exactly one donkey feeds it at night.

(21') every man who owns exactly one donkey feeds the donkey at night

(21'') every man who owns exactly one donkey feeds the donkey he owns at night.

Utterances of (21) and (21') may well be understood as elliptical for, as shorthand for, as proxies for utterances of (21''). The interesting point here, which I discussed at length in *Descriptions*, is that the description for which the pronoun 'it' and the incomplete description 'the donkey' are taken to be proxies may itself contain a pronoun, moreover a pronoun understood as a bound variable. The truth conditions of utterances of (21), (21') and (21'') might be captured using the following formula of our semi-formal language:

(21'')  $[every_x: villager x \bullet [just one_y: donkey y] x owns y]$   
 $[the_y: donkey y \bullet x owns y] x feeds y at night.$

This is not an LF, of course, but it may correspond quite closely to the LF of (21''). The description is Russellian but *relativized* in the sense that uniqueness is relative to choice of villager who owns exactly one donkey. This sort of relativization should occasion no surprise, and I embraced it in *Descriptions* in much the same way that Mates (1973), and Evans (1982) embraced it in similar examples. The processes at work in interpreting an incomplete

description or a descriptive pronoun are pragmatic and richly inferential, and it is clear hearers have no trouble coming up with (21") when quizzed about (21) or (21 ').

One can call the D-type approach to (21) an "implicit binding" approach if one so desires, as long as the word 'implicit' is not being used to lull unsuspecting philosophers into thinking the concept of concern is a *syntactic* one, in the sense of involving the explicit binding of an aphonic variable in the LFs of (21) and (21). No such syntactic component of this sort is constitutive of the basic D-type proposal, and nothing in the particular D-type analyses offered by Davies (1981), Ludlow and Neale (1991), and Neale (1990, 1993) commits them to capturing the relativization in the D-type analyses of (20) and (21) by having the LFs of these sentences contain the description 'the donkey he owns' with 'he' bound by the subject quantifier. This is certainly one option that might be explored, of course, but it opens up a very serious gap between LF and PF.<sup>163</sup>

Interestingly, Stanley and Szabo (2000a) appeal to the D-type theory presented in *Descriptions* to mount an argument against Westerståhl's (1985) view that aphonic quantifier domain variables cohabit syntactic nodes with determiners (in order to show that the view is "theoretically inferior" to their own view, according to which these variables cohabit nodes with common nouns). They recognize that on this D-type theory the pronoun of note is "a proxy" for a description, and they claim this account "elegantly captures" the required reading as long as the domain variable cohabits a node with the noun (and not if it cohabits a node with the determiner). But they do not point out that on that same account, and by the very principle they cite and invoke,<sup>164</sup> the occurrences of 'it' in (20) and (21) are D-type pronouns with relativized interpretations. Of course, if they *had* pointed this out, then given their assumption that relativization can be captured only by variable-binding at LF, they would have had to say one of the following: (a) that the D-type theory they appeal to does *not* posit a bound aphonic at LF and is therefore an *inadequate* theory by virtue of being incapable of capturing relativized readings; or (b) that the theory *does* posit a bound aphonic at LF and so is actually a *precursor* of sorts to their own theory, the sentences it analyses providing more evidence—"syntactic" evidence in their view—for their own position.

The relativized readings involved in relative clause donkey anaphora are well-known, and the sort of D-type theory Stanley and Szabó appeal to is meant to provide analyses of them; so their failure to discuss relativization in connection with D-type pronouns is striking. It is vital to know where Stanley and Szabó stand on relative clause donkey anaphora as the whole style of argument—the so-called Binding Argument—that both Stanley (2000) and Stanley and Szabó (2000) use against positions other than their own (including Perry's unarticulated constituent account of 'it's raining') actually assumes that the E-type and D-type analyses either do not exist or fail, despite explicitly invoking one of them in their argument against a rival theory of domain restriction.<sup>165</sup>

Perhaps there is an unstated psychological doctrine behind the assumption that relativization requires an actual bound variable at LF, despite the existence of accounts of relativization in the literature that do not postulate aphonic bound variables at LF: it is impossible to entertain quantified thoughts without bringing before the mind in some way actual natural language sentences containing variables bound by quantifiers. Evidence for such a doctrine would have to come from psychology, and I am aware of none. The following, even if true, would not guarantee the truth of the doctrine: it is impossible to entertain quantified thoughts without standing in some suitable relation sentences of Mentalese that contain the Mentalese counterparts of bound variables. Language of thought theorists would almost

certainly hold this view—Fodor, and Sperber and Wilson, for example—but nothing follows directly about the syntax of the sentences of English, Icelandic, Xhosa and so on that are regularly used to communicate such thoughts.

Similarly, if I can utter a sentence *X* to say that *p* and thereby *conversationally implicate* that *q*, where the implicated proposition can be *described* using a natural language sentence *Y* containing an expression understood as a variable bound by a quantifier, it does not follow that *X* contains an expression understood as a variable bound by a quantifier. It is hard to believe that relativized interpretations of utterances are going to present problems for the general cognitive mechanisms involved in interpretation given that these mechanisms must also be capable of revealing conversational implicatures, ironic interpretations, metaphorical interpretations, jokes, and so on. A little relativization is child's play.

That something similar to the aforementioned psychological doctrine may lie behind Stanley's variable-binding assumption, is suggested by remarks he makes in connection with (2):

- (1) it was raining
- (2) everywhere I went it was raining.

Since the supposed unarticulated constituent . . . is not the value of anything in [2], there should be no reading . . . in which the unarticulated constituent varies with the values introduced by ['everywhere I went']. Operators in a sentence only interact with variables in the sentence that lie within their scope. But if the constituent is unarticulated, it is not the value of any variable in the sentence. Thus its interpretation cannot be controlled by operators in the sentence. (2000: 410-11).

Stanley appears to be assuming here that it would be impossible for a hearer to interpret someone uttering (2) as saying something that might be expressed using the hideous philosophers' sentence, (2\*).

- (2\*) for every place I went, it was raining at that place

unless the "actual syntactic structure" of (2) contained a variable for 'everywhere I went' to bind. And impossible for a hearer to interpret someone uttering (21) as saying that every man who owns exactly one donkey feeds the donkey he owns at night unless the "actual syntactic structure" of the VP 'feeds it at night' in (21) contains a variable that 'every man who owns a donkey' binds:

- (21) every man who owns exactly one donkey feeds it at night.

The psychological thesis is dubious, and it is odd Stanley presupposes it. I suspect no plausible argument for it can be given, but the question is one for cognitive psychology to investigate.

At best, then, Stanley can be construed as (i) pointing to some well-known data, (ii) offering a vague syntactic proposal for the LFs of the sentences involved in the data, and (iii) claiming that even if utterances of (1) can be interpreted in the absence of an aponic locative in the sentence's LF, interpreting utterances of (2) cannot. The claim in (iii) is pretty explicit:

It is easy to see how an object or a property could be provided by pragmatic mechanisms: it need only be made salient in the context either by the speaker's intentions, or contextual cues, depending on one's account of salience. However, denotations of bound variables are odd, theoretically complex entities. It is difficult, if not impossible, to see how, on any account of salience, such an entity could be salient in a context. Certainly neither it, nor instances of it, could be perceptually present in the context. It is equally difficult to see how speaker intentions could determine reference to such an entity. (Stanley 2000: 414)



The main claim here seems to be that the unarticulated constituent analysis of (1) is straightforward, whereas the unarticulated constituent analysis of (2) is too “complex” to be acceptable. But it’s difficult to ascertain whether Stanley is talking metaphysics or epistemology/psychology here, for he seems to be running together various things we have been careful to keep apart. For one thing, objects and properties are not “provided by pragmatic mechanisms”, although they are *identified* by hearers *using* pragmatic mechanisms (whatever these amount to); for another, salience is not the important issue; and for another, nobody’s intentions ever made anything or any location salient, and the *speaker’s* intentions are no exception.

Let us begin with (1). The location that Perry takes to be an unarticulated constituent of the proposition a speaker expresses by uttering (1) is *determined by* the speaker’s intentions, the formation of these intentions themselves constrained by such things as knowledge of lexical meanings and syntax, expectations, beliefs, estimations of salience, maxims of conversation, and so on (as discussed earlier). The hearer’s job is to *identify* the place the speaker intended, and such things as knowledge of lexical meanings and syntax, expectations, beliefs, estimations of salience, maxims of conversation, and so on are things he uses, or can use, in this task. So, from the point of view of metaphysics, things are simple: the unarticulated constituent is a single location. From the point of view of psychology, things are just as simple: the hearer has to identify a single location.

Now to (2). First, the metaphysics. Stanley says “denotations of bound variables are odd, theoretically complex entities”. It is difficult to assess the import of this remark in the absence of Stanley’s own semantics for bound occurrences of *loc*. Recall that on Stanley’s picture, (a) the proposition expressed by a sentence *X* relative to a context *c* is a proposition determined by, and only by, two things: (i) the denotations relative to *c* of the elements of *X*’s LF, and (ii) a set of context-invariant compositional operations on these denotations, determined by, and only by, the structure of *X*’s LF; and (b) the effects of extra-linguistic factors on the proposition expressed by *X* relative to *c* are restricted to the provision of denotations to some fixed set of expressions that are indexical (in the broad sense). Since Stanley countenances bound variables, it seems he is committed to expressions that do indeed have these “odd, theoretically complex entities”—whatever they are—as their denotations. Quantifiers too will have complex denotations.<sup>166</sup> So will all manner of expressions. So Stanley’s gripe appears not to be metaphysical.

Is it epistemological or psychological? If so, we will have to work hard to describe it clearly as it is surely Stanley’s view that speakers and hearers *do* grasp or understand general/quantificational propositions containing these “odd, theoretically complex entities” as constituents—unless, of course, Stanley is engaged in a purely formal exercise unconnected to the empirical exercise of throwing light on our knowledge of language and on the mechanisms involved in utterance interpretation. According to Stanley, it is “difficult to see how speaker intentions could determine reference to such an entity.” But if we can bear propositional attitudes to general propositions, then we can bear propositional attitudes to general propositions. If there is problem here, it concerns the tension between the idea that bearing a propositional attitude to a proposition involves bearing certain cognitive relations to each of its parts and the idea that bound variables have denotations that are constituents of propositions. *And this has nothing whatsoever to do with unarticulated constituents or relativization*, for it is just an instance of an old problem about the relation between language and thought that has

vexed us since Frege, one that shows no signs of going away. In effect, Stanley is assuming that it is impossible for a monolingual English speaker to grasp the proposition someone expresses by uttering (21) unless (21)'s LF is something like (21''); or grasp the proposition someone expresses by uttering (2) unless (2)'s LF is something like (2'), perhaps (2'').

This all reinforces the point that the most pressing questions here are in psychology and the philosophy of mind rather than in the mechanics of quantification and binding, which seem relatively well understood for now. Perry's commonsense proposal about unarticulated constituents of the propositions we express using sentences of natural language appears to be untouched by anything Stanley says. Moreover, Perry's work on this topic, as well as his earlier joint work with Barwise on quantification and resource situations, forces us to confront what I take to be some of the hardest and most important questions facing anyone working in the philosophy of mind and the philosophy of language. (i) *The Inside-Outside Question*: When we judge what someone has said on a given occasion by uttering some sentence *X* to be true (false) just how rich is the propositional content? How much of any seeming underarticulation is to be explained in the manner suggested by those who have talked about *explicit-elliptical-about* approaches to certain data, and how much in the manner suggested by *implicit-background-concerns* approaches. (The two approaches are not mutually exclusive, of course.) (ii) *The Underprojecting Question*: Can we make sense of the idea that our thoughts, sentences of Mentalese perhaps, also underdetermine their own propositional contents? Perry has suggested they can; Fodor has argued that they cannot. (I have steered well clear of that topic for it seems to me that a rather long paper might be required just to get the question clearly in focus.) We owe Perry a great debt for his bold forays into this terrain and his thought-provoking hypotheses. Like it or not, unarticulated constituents are here to stay, and with luck our judicial system will come to appreciate this.

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<sup>1</sup> *Smith v. United States*, 113 S. Ct. 2050 (1993). This particular case was brought to my attention by Doug Husak. It is discussed briefly by Scalia (1997) and by Sosa (2001) in his review of Justice Scalia's book. I analyse the case in some detail in *Linguistic Pragmatism* in the context of a discussion of Scalia's *textualism*. To cut a long story short, (a) I think Scalia is basically right on the issue, but (b) his textualism seems to me in need of repairs if it is to survive serious scrutiny and at the same time comport with the opinion Scalia himself expresses in *Smith*. (The repairs involve the distinction between expressed and unexpressed intent, and Scalia's talk of "objective intent".)

<sup>2</sup> Justice O'Connor wrote the majority opinion, in which Chief Justice Rehnquist and Justices White, Blackmun, Kennedy, and Thomas joined. Justice Blackmun filing a short concurring opinion. Justice Scalia wrote a dissenting opinion, joined by Justices Stevens and Souter.

<sup>3</sup> Bach (1981), Donnellan (1968), Evans (1982), Hussler (1913), Neale (1990, 2004), Quine (1940), Sellars (1954).

<sup>4</sup> Sperber and Wilson (1986, 1995), Wilson and Sperber (1981). See also Carston (1988, 2002), Neale (1990, 2004), and Récanati (1989, 1993, 2001).

<sup>5</sup> Perry (1986, 1993, 1998, 2001). See also Crimmins (1993), Crimmins and Perry (1989), and Récanati (2001).

<sup>6</sup> For discussion, see Schiffer (2003).

<sup>7</sup> If we are to make sense of the phenomenon of utterance interpretation, we shall need to take more seriously than many philosophers do the *epistemic asymmetry* of speaker and hearer, and the *dovetailed* nature of their respective tasks in the communicative setting. Identifying what the speaker is saying is not simply a matter of identifying *X* and recovering its linguistic meaning, if only because of the existence of pronouns. It is important to separate the epistemological and the metaphysical here. The important metaphysical question is this: what *determines* what a speaker said on a given occasion? And the Gricean answer I subscribe to is this: certain specific *intentions* the speaker had in producing his utterance. These intentions are referential and predicational, and they are severely constrained by the speaker's tacit grasp of syntax, of the meanings of the words he uses, and of the way rational, co-operative beings function, his beliefs about the audience, about the context, and about the topic of

conversation, and probably a whole lot more. The important epistemological question is: what knowledge or information does a hearer use in *identifying* what the speaker said? And the Gricean answer I subscribe to is this: his tacit grasp of syntax, of the meanings of the words used, and of the way rational, co-operative beings function, his beliefs about the speaker, about the context, and about the topic of conversation, and just about anything else he can get his hands on.

It is pointless searching for a notion of “what is said” that transcends the two notions that actually play a rôle in a theory of interpretation: (i) what the speaker intended to say, and (ii) what a reasonably well-informed, rational interpreter of the speaker’s remark takes the speaker to be saying. When all goes well (i) and (ii) coincide, and it is the *potential for this coincidence* that gives rise to talk of “what is said”. It is a mistake to think of “what is said” as some third thing upon which (i) and (ii) are supposed to converge; and it is only a form of linguistic bewitchment that makes “saying” appear more basic than “intending to say”. Similarly referring. There is nothing to be gained by looking for a notion of “reference” that transcends the two notions that actually play a rôle in a theory of interpretation: (i) what the speaker intended to refer to, and (ii) what a reasonably well-informed, rational interpreter of the speaker’s remark takes the speaker to be referring to. When all goes well (i) and (ii) coincide, and it is the *potential for this coincidence* that gives rise to talk of “reference”. It is a mistake to think of “what is referred to” as some third thing upon which (i) and (ii) are supposed to converge; again it is only a form of linguistic bewitchment that makes referring appear more basic than intending to refer. For discussion, see Neale (forthcoming).

<sup>8</sup> The subject of the verb ‘refer’ in ‘*X* may be used to refer to *Y*’ is not *X*. See note 37.

<sup>9</sup> Binding relations are not always forced by syntax. For example, English permits a subject or a non-subject expression to bind a reflexive pronoun, thus (i) may be read with ‘himself’ bound by ‘every bishop’ or by ‘some cardinal’;

(i) [every bishop]<sup>1</sup> told [some cardinal]<sup>2</sup> a story about himself<sub>1/2</sub>.

Not all languages permit this (e.g., German and Icelandic), reflexives often being subject-oriented. For a discussion of this and related matters that bear on the present discussion, see Neale (2005).

<sup>10</sup> The word “issues” was suggested to me by Perry many years ago in roughly this context.

<sup>11</sup> If ‘bank’ is the superficial form of a single, ambiguous word, then identifying what *S* is saying when he utters, ‘I’m going to the bank’ involves identifying which *meaning* *S* has in mind for ‘bank’; if ‘bank’ is the superficial form of two distinct, unambiguous words then identifying what *S* is saying involves identifying which of the two *words* *S* is using. The latter view seems more useful in theorizing about language, and is the one I shall assume.

<sup>12</sup> The idea that certain constituents of propositions expressed by sentences relative to contexts of utterance are actually *determined* by those contexts just adds insult to injury here, involving as it does a horrible conflation of epistemology and metaphysics.

<sup>13</sup> It has been common in philosophy to follow Frege and Russell in talking about names and other singular terms *referring*, *denoting*, *designating*, or *standing for* things, and to see the relation in question as playing a pivotal rôle in a theory of meaning. I suspect this way of talking is the cause of a good deal of trouble. For discussion, see “On Referring Directly.” It is worth noting that not all straightforward uses of so-called referring expressions involve referring. As Wittgenstein notes in the *Philosophical Investigations*, if I say, ‘Peter, please pass me the pepper’, it seems incorrect to say I was *referring to* (talking about, saying something about) Peter. I was *addressing* him not referring to him. The question “Who was the speaker referring to with *X*?” needs to be replaced here with “Who was the speaker addressing as/using *X*?” There is much to say about this matter, but not here.

<sup>14</sup> Crimmins and Perry (1989: 267) seem to be alluding to something like this distinction. The distinction I am trying to get at here is one articulated nicely by Stephen Schiffer in a seminar we taught together. Schiffer distinguishes *Referring-By* and *Referring-In*, the latter being conceptually prior to the former: I can refer to *X* in uttering a sentence (or perhaps just a phrase)  $\alpha$  even though there is no part,  $\beta$ , of  $\alpha$ , such that I referred to *X* by  $\beta$ . But I cannot refer to *X* by an expression  $\beta$  unless  $\beta$  is a part of some expression  $\alpha$  in the uttering of which I referred to *X*. It seems clear that when I talk of ‘*S* referring to *X* with  $\beta$ ’ I am just invoking Schiffer’s notion of *Referring-By*, and when I talk of ‘*S* referring to *X* in uttering  $\alpha$ ’ I am just invoking Schiffer’s notion of *Referring-In*. Schiffer suggests something like the following as preliminary analyses to be explored and refined: *S* refers to *X* in uttering  $\alpha$  if, and only if, in uttering  $\alpha$ , *S* means that *p*, where ‘that *p*’ stands for some *X*-dependent proposition. *S* refers to *X* by (i.e. with)  $\alpha$  if, and only if,  $\exists R \exists x (S \text{ uttered } \dots \alpha \dots \text{ intending } H \text{ to recognize, at least partly on the basis of } H \text{’s knowing that } R(\alpha, x), \text{ that (i) } S \text{ was referring to something in uttering } \dots \alpha \dots \text{ and (ii) that } x \text{ was the thing to which } S \text{ was so-referring. Schiffer is surely right that as far as a theory of interpretation is concerned, the conceptually prior notion of Referring-In is the one that does the final work; but$

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*Referring-By* will be *epistemically* prior in many cases, the hearer taking the speaker to have referred to *X* in uttering  $\alpha$  because he takes the speaker to have referred to *X* with  $\beta$ , where  $\beta$  is a constituent of  $\alpha$ .

<sup>15</sup> The situation with (4) seems similar to certain cases that both Perry and I have discussed elsewhere, for example ‘the mayor, Þórólfur Arnason’ or ‘Egil, son of Skallagrim’. (Barwise and Perry (1983), Neale (1999, 2001b).) Because of the patronymic system, Icelandic names raise an interesting issue here. ‘Jón Ólafsson’ might be regarded as a proper name or as something English speakers might render as ‘Jón, Ólaf’s son’. Certainly there was a time when ‘Jón Ólafsson’ was more like ‘Jón, Ólaf’s son’ than it is today.

<sup>16</sup> See Carston (2002), Fodor (2001), Récanati (2001), Sperber and Wilson (1986, 1995), and Neale (2004). The issue of whether characters (rather than contents) can be composed is ultimately uninteresting.

<sup>17</sup> It is an empirical theory of utterance interpretation in this sense that Sperber and Wilson and other relevance theorists are trying to construct.

<sup>18</sup> As far as natural language itself is concerned, trying to build pure *content* begins to look about as futile as trying to build pure *character*.

<sup>19</sup> See Lewis (1979, 1996), Cohen (1999), DeRose (1999), MacFarlane (2003, forthcoming).

<sup>20</sup> See Stanley (2000, 2002a, 2002b), Stanley and Szabó (2000).

<sup>21</sup> See (e.g.) Barwise and Perry (1983), Kaplan (1989), Montague (1974), Perry (1977, 1978, 1986, 1998, 2001), Reichenbach (1947), and Russell (1948).

<sup>22</sup> See Lewis (1979, 1996), Cohen (1999), DeRose (1999), and Stanley (2000, 2002a, 2002b). Stanley also claims to have “syntactic” arguments for the existence of his silent, indexical expressions and against the existence of Perry’s unarticulated constituents. But these arguments are not obviously distinguishable from the trivial point that whenever Perry or anyone else posits an unarticulated constituent, it is possible to concoct a semi-formal, semi-English formula that contains a variable whose value we could take to be the purported unarticulated constituent. This matter is discussed below.

<sup>23</sup> See Grice (1970, 1981). See also Quine (1940), who anticipates both Strawson’s argument and Sellars’s response. See also Husserl (1913).

<sup>24</sup> Part of this manuscript was published in 1981 and again (with cuts) in 1989 as “Presupposition and Conversational Implicature.”

<sup>25</sup> Kripke’s position is quite different from the position Grice (and I, following him) took, for it revolves around a distinction between semantic reference and speaker’s reference, a distinction which seems to me to have no useful rôle in a theory of language use. It seems to me, as it seemed to Grice and Strawson, that the notion of reference we need in a theory of language is speaker’s reference and that any word-based notion is at best derivative. On the account of reference I favour it is perfectly acceptable to say that I referred to Reykjavik when uttering ‘it’s raining’ even if there is no part of the sentence I used to refer to Reykjavik.

<sup>26</sup> In *Descriptions*, I tried to remain neutral on the nature of propositions, stopping short of committing myself to the view that they contain objects (and properties) themselves as constituents, rather than being entities built up in some way from object-dependent senses in Evans’s (1982) sense. This was one reason I eschewed Perry’s terminology. (Another reason was that often I was privately construing the formulae of the language of restricted quantification I was using to systematically set out truth-conditions to be semi-English, semi-formal renderings of sentences of the language of thought, and unlike Perry I was not willing to countenance the idea of sentences of the language of thought underdetermining their own contents. I had trouble with that idea when I was Perry’s student, and I still have trouble with it.) These days I am less worried about cashing out object-dependence in terms of objectual constituency, indeed I see no serious alternative since I now believe Evans’s ideas about object-dependent senses to be unworkable.

<sup>27</sup> These sentences are quantificational, of course, and stand to (2) as ‘I saw someone’ stands to ‘I saw him.’ The matter of quantified weather sentences will be taken up in due course.

<sup>28</sup> We can leave it open for now whether *all* unarticulated constituents are things implicitly *referred to*. It is quite consistent to hold (a) that *properties* may be unarticulated constituents, and (b) that when we speak we do not exactly *refer* to properties. If I say, ‘Perry snores’ I might reasonably be said to be *talking about* or *saying something about* Perry, and this seems to underpin talk of my *referring to* him. It seems odd, however, to say I am *talking about* or *saying something about* snoring, hence odd to say that I was *referring to* it. (Under the spell of their own theoretical uses of ordinary terms, some philosophers might be happy to say that when I utter ‘Perry snores’ I am indeed talking or saying something about snoring: I was saying of it that Perry participates in it.)

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<sup>29</sup> Acoustic phonetics concerns the acoustic properties of the sounds we produce in speaking, auditory phonetics the effects these sounds have on the perceptual apparatus involved in receiving them.

<sup>30</sup> The portion after the ellipsis in (1) is actually given as a distinct meaning, but this does not seem particularly important for my immediate purposes.

<sup>31</sup> I say *perhaps* because delicate syntactic matters concerning syntactic deletion (syntactic ellipsis) need to be examined here. According to certain theories, including the theory to which I myself am most partial, it is arguable that there is an underlying level of syntactic representation (LF) at which the sentence I utter when using (5) to express the proposition that Akureyri gets less rain than Reykjavik contains the words (or something doing the work of the words) ‘than Reykjavik’, which are deleted at the surface (PF). See below.

<sup>32</sup> I am indebted to Adam Sennet for exposing a weakness in an earlier formulation. In the formulation above a great deal of work is being done by the verb ‘correspond’. If clause (b) of the definiens were “among the portions of  $X^u$  that represent the constituents of  $\langle \dots \alpha \dots \rangle$ , there is no portion that represents  $\alpha$ ” a problem would arise. As noted earlier, I may use sentences such as (i) and (ii) to express propositions containing *two* occurrences of Reykjavik (assuming the conception of propositions mentioned earlier):

- (i) most citizens think the mayor is underpaid
- (ii) the mayor doesn’t realize that it’s raining.

If we replace ‘the mayor’ in tokenings of (i) and (ii) by ‘the mayor of Reykjavik’ we will, in each case, have portions of tokenings that represent Reykjavik. But intuitively we still want to say that these propositions have constituents that are unarticulated relative to these tokenings of the sentences in question. Any patch would seem to require taking into account *position* or *occurrence*, pairing *portions* of  $X^u$  (where there are such) with *constituents* of  $\langle \dots \alpha \dots \rangle$ . Hence my use of the verb ‘correspond’ above. This might alarm some who endorse unarticulated constituents because it might seem to smuggle in an ellipsis (or explicit) approach to unarticulated constituents according to which  $\alpha$  is an unarticulated constituent of  $\langle \dots \alpha \dots \rangle$  relative to  $X^u$  only if there is a natural expansion  $E(X)$  of  $X$  with the following property: if  $E(X)$  rather than  $X$  had been used to express  $\langle \dots \alpha \dots \rangle$  the tokening  $E(X)^u$  would have a portion corresponding to and representing  $\alpha$ . My own view of the matter is that an ellipsis (explicit) approach *is* required, but I do not want anything here to turn on this. Perry, Carston, and Sperber and Wilson say things which suggest they might be unhappy with this.

<sup>33</sup> Let me say right away that this is not meant to exhaust the application of Perry’s concept in the realm of thought, but as I am not confident I have clear pictures of the issues Perry is using unprojected constituents to address (the *de se*, continued belief, self-location, self-knowledge, self-deception, and so on), I shall steer clear of them here and focus on what I think I *do* understand, which is quite enough work.

<sup>34</sup> To say this is not to say that the resulting theories are always more *constrained*. (See Chomsky (1981).) There are all sorts of delicate issues one could take up here about the nature and of syntactic rules, the nature and number of levels of representation, the nature of phonological, syntactic, and semantic evidence for syntactic hypotheses and so on, but they can be ignored.

<sup>35</sup> Perry’s own words: Perry (1986, 1993, 1998, 2001), Crimmins and Perry (1989). See also, Crimmins (1993), which I take to be a reliable guide.

<sup>36</sup> The importance of such a distinction was impressed upon me by Stephen Schiffer. For discussion, see below and note 14.

<sup>37</sup> Thus I assume (i)-(iv) are interpreted in parallel fashion:

- (i) I used Pashtu to welcome the chief
- (ii) I used an arcane word to stress my/his point
- (iii) I used an indexical to refer to Reykjavik
- (iv) I used ‘here’ to refer to Reykjavik.

I welcomed the chief, I stressed my point, and I referred to Reykjavik; Pashtu, an arcane word, an indexical, and the word ‘here’ were my tools. In the parlance of generative linguistics, ‘use’ is here a subject-control verb; that is, each of (i)-(iv) contains an infinitival clause whose subject is an aponic bound by the subject of the main clause:

- (i’) I<sup>1</sup> used Pashtu [<sub>S</sub> PRO<sub>1</sub> to welcome the chief].

That subject control is what is involved is reinforced by (v) and (vi) because Principle A of Chomsky’s (1981, 1986) Binding Theory requires a reflexive to be bound by an expression that is a constituent of (roughly) the smallest clause containing it:

- (v) I used ‘I’ to refer to myself

- 
- (v) I<sup>1</sup> used ‘I’ [<sub>S</sub> PRO<sub>1</sub> to refer to myself<sub>1</sub>]  
 (vi) every officer used ‘I’ to refer to himself  
 (vi’) [every officer]<sup>1</sup> used ‘I’ [<sub>S</sub> PRO<sub>1</sub> to refer to himself<sub>1</sub>].

(Very roughly, reflexives cannot be ‘too far away’ from their antecedents, and non-reflexives cannot be ‘too close’ to them, putting the two in virtual complementary distribution as far as interpretive dependence is concerned. For a discussion of the Binding Theory aimed at philosophers, see Neale, 2005.)

<sup>38</sup> Indeed, it seems in harmony with what Crimmins and Perry (1989: 267) say about reference. See below for discussion.

<sup>39</sup> I have no intention of sorting out the logical grammar of ‘statement’, ‘utterance’, ‘use’, ‘remark’, ‘assertion’, ‘question’, ‘inscription’, ‘expression’, ‘interjection’, ‘speech act’ and so on here. I am, however, willing to say that someone who utters ‘Perry’s use of “it’s raining” was true but far too loud’, ‘Perry’s statement was well-timed and quite pertinent’, ‘the content of Perry’s utterance was proportional to its volume’, or ‘Perry’s remark was justified and broke a window’, is making a category mistake, and that ‘Perry’s question was hostile’ is ambiguous—did he quietly ask whether your current theory of personal identity was as idiotic as your previous one, or did he make menacing gestures while screaming into your ear ‘Would you like some chocolate?’ When ‘utterance’ is used for the object/product in, say, ‘my utterance of *X*’, at least some of the time it is replaceable by ‘what I said by uttering *X*’ or by ‘what I said by my utterance of *X*’ in which ‘utterance’ is used in the sense of act/process. And it is for this reason, I think, that many of us are drawn to talk of true or false utterances. There are many other adjectives that we put alongside ‘statement’, ‘remark’, ‘utterance’, ‘use’ and so on: ‘reassuring’, ‘frightening’, ‘intelligent’, ‘hurtful’, ‘courageous’, ‘bold’, ‘rude’, ‘sentimental’, ‘loud’, ‘ironic’, ‘metaphorical’, for example. We must exercise caution here: in many cases we are predicating something of what the speaker said, of the fact that something was said, of the speaker’s act of saying what he said, or of the particular words used in the act. (If Bill, who has been knocked down by a bus and seems close to death, manages to utter the words ‘I am dying’, his utterance, his statement, his remark, or his use of these word may be reassuring in one sense but not in another.)

<sup>40</sup> It seems a good idea to me to use different words for the parts of propositions and the parts of sentences the way Perry does. I did this in *Facing Facts*, but I chose the reverse usage, ‘constituents’ for the parts of sentences (following the usage of linguists) and ‘components’ for parts of facts, propositions. I adopt Perry’s usage here.

<sup>41</sup> The only place I detect any trouble is where Perry says, on p. 207, that ‘the constituents of my statement that I am sitting are me, the present moment, and the relation of sitting’. Replacing ‘statement’ by ‘sentence’, ‘use of the sentence’ or ‘utterance’ here leads to nonsense; but that this is not what Perry intends seems clear from the fact that he uses the locution ‘the statement that’. On the seemingly safe assumption that Perry does not mean to be positing a new class of entities, ‘statements’, half way (as it were) between uses of sentences and propositions, I am inclined to think he has simply tried to compress too much into this remark. If he were being less elliptical he would have written ‘the constituents of the proposition that I am sitting, i.e. the proposition expressed by my use of “I am sitting”, are me, the present moment, and the relation of sitting’.

A final remark on ‘statement’: when Perry talks simply of ‘a component of a statement’, he appears to be talking about a component of a sentence used (to make the statement); but when he talks of a component of a statement *designating something*, he appears to be talking about a component of a sentence *as* used on a particular occasion.

<sup>42</sup> See also Crimmins (1992), p. 16.

<sup>43</sup> The repeated parenthetical ‘right now’ was calculated to be sufficiently irritating that you will (a) feel only relief if I assume it henceforth, and (b) feel disinclined to complain that I am overlooking *times* when I suppress reference to them in later discussion. Suppose I use (i)

- (i) it rained here today

at 6PM GMT—Reykjavík is on GMT year-round—to answer a question about the weather in Reykjavík, i.e. using ‘here’ to refer to Reykjavík and ‘today’ to refer to today (November 5, 2002). The word ‘today’ is not the only temporal element I used. I used the *past* tense, and in so doing I indicated that I was talking about something that happened *prior* to the time of utterance. Nothing about the meaning of ‘today’ guaranteed this (witness the sentence ‘it will rain here today’). The past tense and today’ narrow things down in a way that *neither* does alone. With a draconian and somewhat artificial degree of precision, let us say that by using ‘today’ at 6PM, I indicated only that I was talking about something happening no earlier than 18 hours prior to my speaking and no later than 6 hours afterwards. By using the past tense marker I indicated something happening *prior* to the time of my

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speaking. So it was only by my use of the *combination* that I indicated that the happening I was talking about—raining in Reykjavík—occurred during the 18 hours prior to my speaking.

Virtually all of the important points I make here could be made using an example such as (ii) in which a time is nailed down:

(ii) it rained on November 5, 2002

But there is now quite a literature involving examples like (1), most of it making the same temporary temporal, and tense-related idealizations I am making here, so I work with examples like (1) to preserve continuity with that literature, making it easy for me to quote Perry (1986, 1998, 2001), Bach (2001), Récanati (2001), Stanley (2000), and Taylor (2001) without boring remarks indicating changes.

<sup>44</sup> For discussion, see Kaplan (1978, 1989). I take pleonastic ‘it’ in ‘its raining’ and ‘there’ in ‘there’s a fly in my soup’ are not interesting.

<sup>45</sup> Neale (1990: 105 n.16; 114 n. 46; 116 n. 54).

<sup>46</sup> Neale (1990: 115, n. 54). The actual example I used was of an utterance of

(i) the president looks ill.

There is no “guarantee” I said, that just because I am in the USA when I utter this sentence my utterance is to be understood as elliptical for an utterance of ‘the U.S. president looks ill.’ It could easily be elliptical for an utterance of, say, ‘the French president looks ill’, for example during a discussion about the health of French politicians. I added that Husserl (1913) was surely wrong when he said that a German using ‘the emperor’ (back in 1913) would be talking about the emperor *of Germany*. We don’t want to say that the speaker’s *nationality* determines an unarticulated constituent here!

With respect to sentence (ii) from footnote 32, we could easily construct a scenario in which Perry expresses a proposition containing two distinct unarticulated constituents, Reykjavík and Keflavik for example, and just as easily construct one containing Reykjavík twice.

<sup>47</sup> Don’t fret about the indefinite article: It is no part of the concept of *being a mayor* that only one thing can be mayor of something at any one time. Sparta had two kings, and semantically this is no more bizarre than California having two senators. One could always write it into the law of some country that there is to be only one king at any one time, just as one can write it into law that there is to be only one senator of a certain state, only one mayor of a certain town, only one general in a particular army, or one headmaster of a certain school; but such acts do not alter the *meanings* of ‘king’, ‘senator’, ‘mayor’, ‘general’, or ‘headmaster’.

<sup>48</sup> It is sometimes said that one difference between ‘eats’ and ‘devours’ is that the latter has no intransitive use. This is surely wrong. We should not be misled by the fact that intransitive uses of the general eating verb ‘eat’ are very useful and so frequently encountered (‘I’ve eaten already’) into thinking intransitive uses of the more specific eating verb ‘devour’ are ungrammatical. It does not take much imagination to come up with a scenario in which ‘I have already devoured’ is natural. (Cf. ‘I have already consumed’ and ‘I have already imbibed’.)

<sup>49</sup> I have here assumed that in predicates of the form “is the *F*”, “the *F*” functions as a Russellian description. Nothing turns on this, but the idea has been questioned by Geach (1962), Graff (2000) and others.

<sup>50</sup> (6”) and (7”) raise the question whether it would in any event be correct to think that the *nouns* themselves co-occur with aponic arguments, for there is not even the semblance of an incompleteness problem to be solved with uses of these sentences. But this is an artefact of the examples, involving as they do, indefinite descriptions, hence determiners that are persistent in the sense of Barwise and Cooper (1980) and Barwise and Perry (1983). For discussion, see Neale (2004).

<sup>51</sup> As John Hawthorne has pointed out to me, there is the matter of *the king of the gypsies*. I find nothing metaphorical in talk of a nomadic people having a king or a mayor; but some informants do, so I won’t push this.

<sup>52</sup> See Stanley (2000, 2002a, 2002b) and Stanley and Szabó (2000).

<sup>53</sup> A *phonic* is an element of syntax that has phonetic properties, an *aphonic* is one that does not. Since ‘aphonic’ is both an adjective and a noun, it is well suited to our discussion, enabling us to avoid such nominal mouthfuls as ‘phonologically empty element’ and ‘phonetically null element’, as well as the adjectival mouthfuls ‘phonologically empty’ and ‘phonetically null’. (All aphonics are homophonic I suppose, but it does not follow that all aphonics affect the totality of phonic features of a sentence in the same way.) Since ‘indexical’ is also an adjective and a noun, ‘indexical aponic’ and ‘aphonic indexical’ are strictly interchangeable. However, for purposes of *emphasis*, one may be better than the other in certain contexts. *Mutatis mutandis* ‘aphonic variable’ and ‘variable aponic’.

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<sup>54</sup> This position is advocated by Stanley (2000) and criticized by Récanati (2001) and Carston (2002). For discussion, see below. I say in ‘much the same way’ rather than ‘in exactly the same way’ above because the alleged aphonic does not have the same use conditions as the phonic ‘here’: unlike the phonic, the alleged aphonic can be used straightforwardly to refer to locations other than the one the speaker is in. (I say ‘straightforwardly’ because it is possible to have what I shall call *map* uses of ‘here’: I am writing this footnote in New York but I could point to the spot representing Reykjavík on a map and say ‘I wrote most of this paper here’, meaning Reykjavík rather than New York.)

<sup>55</sup> As Chomsky (1995) stresses.

<sup>56</sup> It does not follow that names are not rigid in Kripke’s (1980) sense, as Chomsky appears to think. For discussion, see “On Referring Directly.”

<sup>57</sup> By ‘possible states of the world’ I mean what many philosophers mean by ‘possible world’, a phrase that can lead people with certain propensities into saying (and then endorsing and defending) seemingly exciting and bizarre things that more down-to-Earth vocabulary might never have suggested to them.

<sup>58</sup> Mutatis mutandis the propositions I express by uttering (i) and (ii):

- (i) the capital of Iceland has over 100,000 inhabitants
- (ii) the king of Iceland is bald.

Of course, strictly speaking the propositions are location-dependent by virtue of being *Iceland*-dependent, but it is not the referential expressions *inside* the subject phrase that we are winking at, so the propositions are not singular. It would be a lame objection to Russell’s Theory of Descriptions to point out that since the proposition someone expresses by uttering ‘the king of France’ is bald’ depends for its existence upon the existence of France, we do not uniformly express general propositions when we use sentences with descriptions as subjects.

<sup>59</sup> For discussion, see *Descriptions* Ch 2.

<sup>60</sup> There is, of course, a perfectly good sentence one would use to express the proposition that it’s raining somewhere or other:

- (i) it’s raining somewhere or other.

But even here, ‘somewhere or other’ will typically be taken to be elliptical (for, say, ‘somewhere or other in Iceland’) or to be interpreted relative to a restricted domain.

<sup>61</sup> I take it Taylor says “the contextual provision of a place or *range* [my italics, SN] of places” to take into account quantified as well as singular weather statements. This seems right to me, and I will follow Taylor to indicate this where appropriate.

<sup>62</sup> Michael O’Rourke has suggested the following possible counterexample. A: How’s the nightlife in Provo? B: Well, we’re dancing! (Compare: A: How’s the weather in Provo? B: Well, it’s raining.)

<sup>63</sup> Of course it is not difficult to imagine a scenario in which I intend to be expressing the “more general” proposition that every capital city in the universe has more than 100,000 inhabitants.

<sup>64</sup> The label comes from talk of incomplete definite descriptions (‘the capital city’ etc.).

<sup>65</sup> See Perry’s (1986) discussion of Z-landers.

<sup>66</sup> Perry (1986: 214-5).

<sup>67</sup> I heard a version of Perry’s 1986 paper at Stanford before I had completed my first draft of Ch. 3 of *Descriptions*. Where Perry, at the time, was trying to shed some light on self-knowledge and egocentric space, I was labelling two traditional approaches to incompleteness I had encountered in the literature. As I worked with Perry on drafts of Ch. 3 in 1986/87, I contemplated bringing in his about-concerns distinction but shied away, thinking it would complicate matters and necessitate digressions on locations, situations, and self-knowledge.

<sup>68</sup> It is sometimes claimed that we are all relativists of a sort about truth, that no-one takes propositions to be true or false absolutely because the same proposition can be true at one possible world and false at another. (See e.g. MacFarlane, 2003.) This claim seems to me deeply misguided, the product of allowing oneself to be steered more by machinery than by the philosophical problems engendering it. To express an interest in the *truth* of a proposition is to express an interest in how things *are*, not an interest in how things *have to be*. (To be interested in how things *have to be* is to express an interest in *necessary truth*.) A proposition is true or false depending upon how things are. If it makes you happy to construe this as true or false *relative* to the way things are, so be it; but don’t try to sell this as a form of relativism! (Similarly, talk of truth in a model.) Within a semantic framework that appeals to the machinery of possible worlds, the surrogate for a proposition’s being true (“relative to the way things are”) is its being *true at the actual world*, where the actual world is conceived as one of an indefinite



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number of ways things could have turned out. But the perfectly sensible idea that we can, within such frameworks, represent a *proposition's* being true in this way appears to have become inextricably bound up in some minds with the discovery that there is a rôle in certain logics for talk of a *sentence's* being true/false (expressing a truth/falsehood, expressing a true/false proposition) with respect to collections of parameters (“circumstances of evaluation”) that include worlds and times (and perhaps locations), to engender the unsound idea that there are interesting choices to be made about *the nature of propositions*: we might view them as true or false relative to worlds, or relative to worlds and times, or relative to worlds, times, and locations, or relative to worlds, times, locations, and aesthetic standards, and so on. Call these beasts “propositions” if you like, but don’t confuse them with propositions! Why not call them exactly what they are: *propositional functions*.

<sup>69</sup> The semantic theory built around these entities is called *situation semantics*, and the theory of the nature and structure of situations themselves is called *situation theory*.

<sup>70</sup> Formally, Barwise and Perry (1983) take *partial* possible worlds to be the entities relative to which propositions are evaluated for truth and falsity, and this adds an interesting twist to any charge of truth relativism of the sort mentioned in note 68. Barwise and Perry’s framework evolved considerably in the 1980s and it is tricky trying to transpose the underlying suggestion for use in frameworks that involve propositions. But with some liberty, we might say the following. As far as (2) is concerned, the idea is *not* that someone uttering (2) expresses different propositions according as the speaker is talking about the UK, Europe, Earth, or the entire universe—the proposition that every capital city in the UK has more than 100,000 inhabitants, the proposition that every capital city in Europe has more than 100,000 inhabitants, and so on. Rather, the idea is that the *same* proposition is expressed. But doesn’t this open the theory up to the charge that it does violence to the notion of a proposition by making the truth or falsity of a proposition a relative notion? Formally a proposition is still true or false depending upon how things are, so the answer ‘No’ might seem plausible on the grounds that no *new parameter* is being invoked. But it might be countered that talk of *part* of the way things are is indeed the invocation of a new parameter.

<sup>71</sup> So, on the explicit response, someone producing an utterance of an incomplete DP (e.g. ‘every citizen’ or ‘the president’) is understood as expressing what he *would have* expressed more explicitly had he uttered a richer (‘complete’) DP (e.g. ‘every U.S. citizen’, ‘the U.S. president’), a DP he *could have* used in place of the incomplete one. The explicit strategy is sometimes called the *ellipsis* strategy in the literature, presumably in deference to the suggestions made by Quine (1940) and Sellars (1954), who talk, respectively, of *elliptical uses* and *elliptical utterances* of descriptions. For detailed discussion, see Neale (2004).

<sup>72</sup> For unfathomable reasons, Stanley and Szabó (2000a) read just such a syntactic thesis into the summary of the explicit response in *Descriptions*, and by implication into the explicit responses of Quine (1940), Sellars (1954), Bach (1981), Davies (1981), and Evans (1982) amongst others. For discussion, see Neale (2004).

<sup>73</sup> See Soames (1986) and Westerståhl (1985).

<sup>74</sup> The situation here is reminiscent of the situation in modal logic when people thought having a full axiomatization and later a model theory answered the philosophical questions about the interpretation on ‘necessarily *Fx*’. See the postscript to Ch. 4 of *Descriptions*, exp. ed.

<sup>75</sup> But see O’Rourke (2003).

<sup>76</sup> The same words appear at the beginning of the paragraph immediately following the one just quoted:

the fact that one can imagine an utterance of ‘It’s raining’ that is true iff it’s raining (at the time of utterance) in some place or other arguably establishes the pragmatic nature of the felt necessity to single out a particular place, in the contexts in which such a necessity is indeed felt. If that is right, there is no need to posit a lexically specified argument-role for a location in the sub-atomic structure of the verb ‘rain’: ‘Rain’ is like ‘dance’ and other action verbs, contrary to what Taylor claims (2001: 54). That raining must take place somewhere or other is a metaphysical fact, not a linguistic fact. That fact does not prevent an utterance like [(1)] from expressing a fully determinate proposition even if no place is contextually provided (2001: 317).

Taylor is right, I believe, and Récanati wrong about ‘rain’ and the properties it shares with ‘dance’.

<sup>77</sup> Surely Récanati would agree that it would be poor methodological practice to centre a theory of interpretation on the unusual, out-of-the-ordinary case he constructs, and then treat the usual, run-of-the-mill cases as involving a complexity or oddity of some sort. It would make more sense to see the unusual, out-of-the-ordinary case as involving a complexity or oddity. So really the strongest moral Récanati would be entitled to draw from his intuition that the proposition the weatherman in his example expresses does not contain an unarticulated location, is that under certain unusual circumstances it is just about possible to abstract from a location. And *that* moral does not conflict with

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point made by Taylor, that in the interpretation of a use of a sentence containing the verb ‘rain’, the lexical structure of the verb itself is “the source of the felt need for the contextual provision of a place or range of places where a raining happens” (2001: 54). But once this is conceded, it might as well be conceded that the alternative description of the proposition expressed in Récanati’s unusual, out-of-the-ordinary case, the one according to which the weatherman’s utterance is true if, and only if, it is raining somewhere or other *on Earth* is considerably more attractive. It conforms more closely to our intuitions, and it preserves a unitary account of utterances involving the verb ‘rain’: there is *always* an unarticulated location (or range of locations). Could Récanati tip the methodological scales in the other direction by modifying his example, making it more science fictitious? Suppose rain has become extremely rare and important in *the entire universe* (whatever exactly that amounts to), trillions of detectors etc. Would he now have a potential counterexample to the unarticulated location hypothesis? It is far from obvious we would, for it would not be unreasonable to maintain that the entire universe (rather than, say, Earth or Recanto) is an unarticulated constituent of the proposition expressed.

<sup>78</sup> In response to the present paper, Récanati recently sent me a paper in which he expresses a worry about the existential quantification in the sort of informal glosses I have been using in monitor-room examples (e.g. “its raining somewhere or other on Earth”). The worry, as I understand it, is this (I have changed ‘Paris’ to ‘Recanto’, and shifted to my own monitor-room example in order to make the right comparison): usually when we use ‘it’s raining in Recanto’ to say that it’s raining in Recanto, we are not just saying that it’s raining *somewhere or other* in Recanto, but that it’s raining “*over* Recanto (i.e. at most sub-locations in the Recanto area)” Thus a difference between monitor-room examples and the more usual examples, one that Récanati seems to think undermines the position I am taking in the text. Why? Because “Clearly in the [monitor-room] example, the sentence ‘it’s raining’ does not mean that it’s raining over Recanto . . . The weatherman’s utterance only means that it’s raining *somewhere* in Recanto.” There is an error in Récanati’s thinking: assuming that facts about uses of ‘It’s raining in X’ carry over to uses of ‘it’s raining.’ The assumption Récanati needs is, in fact, false. It may well be true that when we use ‘it’s raining in X’ we are normally saying something that is true if, and only if, it’s raining at most sub-locations in the X area (actually this seems to too strong, but let that pass); but *nothing* follows about our uses of ‘it’s raining’, and for an obvious reason if what Perry has been saying is true: the proposition one expresses by uttering ‘it’s raining’ (unlike the proposition one expresses by uttering ‘it’s raining in X’) must contain an unarticulated constituent. What is characteristic of monitor-room examples is the *complexity* of this constituent, which could be articulated using ‘somewhere or other in X’.

<sup>79</sup> I am not entirely sure, but this may be something that Cappelen and Lepore endorse. I have difficulty getting their position clear, in some places it seems like a version of existentialism, in other places a version of nihilism, and in still others a version of neither.

<sup>80</sup> ‘False!’ the advocate of “T-theorem” (5) cries: ‘A sentence can have a truth condition even if it lacks a truth value’. But I did not assume that no sentence can have a truth condition unless it has a truth-value; I assumed only that if a particular sentence can have a truth-value only relative to a location then it can have a truth condition only relative to a location, an assumption whose denial leads to obvious contradiction.

<sup>81</sup> It is no response to this to say that it is obvious that ‘it’s raining iff it’s raining’ is true. It is *not*, since neither its left- nor its right-hand side has a truth-value or a truth condition except relative to an index. (To claim, as I think Cappelen and Lepore would, that this remark runs together truth conditions and *verification* conditions is to confuse the metaphysical question of whether ‘it’s raining iff it’s raining’ is evaluable for truth or falsity with the epistemological question of whether anyone can determine the truth value of ‘it’s raining’. Verification is simply not the issue.) And once an index is brought in the game is up again.

<sup>82</sup> Of course, I do not think sentences-relative-to-indices are actually the right sorts of things to be evaluated for truth or falsity within a theory of utterance interpretation.

<sup>83</sup> The words ‘indexical’ is itself part of the problem, suggesting as it does that interpreting such devices involves merely looking something up in an ‘index’. People can be more influenced by labels than they sometimes realise.

<sup>84</sup> A lot here turns on one’s conception of logic, and my wording evinces a particular stance, though not one I want to insist on: logical relations hold among *what is expressed* by token sentences of a formal system not among sentences themselves. (Various issues about the notion of formal validity and inference rule must be faced by people who hold this view of logic.) The point I am making in the text is not dependent upon this stance. Cf. discussions of the difference between the logical form of a proposition and the logical form of a particular sentence used to express that proposition.

<sup>85</sup> It is, perhaps, tacit recognition of this fact that has led some philosophers to conclude that there is no hope of producing a theory of *utterance interpretation* without positing all sorts of aponic, indexical

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elements in the underlying syntax of natural language sentences. We may use anything we like to throw light on the syntax of natural language, but we must never lose sight of the fact that discerning the syntactic structures of our sentences is an empirical exercise. Certainly the idea of aphonics in syntax is not objectionable in itself. On the assumption that syntax relates sound and meaning, we must certainly allow for the possibility of elements that have sound but no meaning ('it' in 'it's raining?'), or meaning but no sound (the understood subject of 'leave' in 'Tom wants to leave?'). And there can be little doubt today that great advances in our understanding of syntax have been made by those such as Chomsky who have not shied away from the idea of aphonic items in syntax and argued for their existence and explanatory value. But we cannot simply *assume* that whenever we encounter some feature of what is said that does not appear to correspond to any element or feature of the sentence uttered it follows that there is some element in underlying syntax waiting to be exposed.

<sup>86</sup> I am putting aside here some very real concerns about talk of *sentences* saying things relative to contexts. I am sceptical about the value or relevance of the use of the verb 'say' assumed in this way of talking to the project of constructing a theory of utterance interpretation, unless it is understood as a stylistic variant of talk of *speakers* saying things by uttering sentences on given occasions. Judgments about what a *speaker* said, and about whether what he said was true or false in specified situations, constitute the primary data for a theory of interpretation, the data it is the business of such a theory to explain. What a speaker *says* and what he *implies* (e.g. conversationally implicates) on a given occasion are the things that together constitute what the speaker *means*, and a theory of interpretation is meant to explain the role of linguistic meaning and inference in the hearer's identification of what the speaker meant. No-one has intuitions about *what is said by a sentence X relative to a context C* or about the truth or falsity of *X* relative to *C* unless this is just a formal way of talking about what the speaker said by uttering *X* on a particular occasion—the occasion that *C* is being used to partially model or approximate. If such talk is straightforwardly transposable into talk about what the speaker said then we can accept its empirical significance. If it is not so transposable, then its empirical significance must be justified in some other way, from *within* the theory of interpretation by reference to some empirical role it is required to play in an explanation of what a speaker says and implies by uttering *X* on a given occasion, in much the same way that notions such as LF, scope, and binding are motivated from within. If some such motivation is forthcoming, we should be only too happy to listen. I suspect it will not be forthcoming because the notion of what a *sentence* says relative to a context is going to be too thin and overly-detached from speakers' communicative intentions to carry any empirical weight. Nonetheless, I adopt a wait-and-see approach. We are involved in an empirical enterprise after all.

<sup>87</sup> As soon as we introduce anaphoric pronouns—those that are linked in some interpretive fashion to other expressions (their 'antecedents')—matters become more complicated. The reflexive 'himself' *must be* interpreted via an antecedent; the non-reflexives 'he', 'him', and 'his' *can be* so interpreted (under certain conditions).

<sup>88</sup> Carston (2002) implicitly anchors in her examinations of 'pragmatic enrichments' in connection with utterances of conjunctions (indeed, it is what she implicitly does throughout). Similarly, Evans implicitly anchors in *The Varieties of Reference* (and elsewhere), Sperber and Wilson do it throughout *Relevance* (and elsewhere), and I do it explicitly in Ch. 3 of *Descriptions* in connection with the effects of indexicals appearing in definite descriptions. Chomsky also does something analogous to anchoring in every work in which he discusses pronouns. (I say 'analogous' because of Chomsky's concerns about reference).

<sup>89</sup> If, as for example Stanley (2000) has suggested, (1) contains such a device, does this mean that (2) also contains it? Or does it mean the position the device occupies in (1) is occupied by 'here' in (2)? Is 'here' an argument or an adjunct in (2)?

<sup>90</sup> To say that he homes in on Reykjavik is not to make the cognitive claim that he has to mentally convert 'here' into 'in Reykjavik' in his head in order to interpret my utterance. Nor is it to make the syntactic claim that although 'here' appears in (2)'s PF, its LF contains the expression 'in Reykjavik' (a syntactic operation turning 'in Reykjavik' into 'here'). Both claims strike me as bizarre, and the latter would seem to conflict with standard assumptions in syntax: (2) could no longer be viewed as the PF of a unique sentence, for otherwise it could not be used to say that it snowed today somewhere other than Reykjavik! (2) would have to be treated as the PF of thousands of distinct sentences, something that would not in this case obviously comport with the usual ideas about the relation between PF and LF.

<sup>91</sup> Appeals to formal contexts do not answer the *how* question. Such appeals are fine for formalizing inference or methodological anchoring and co-anchoring, but contexts make precisely no contribution to answering the *how* question beyond helping the theorist state clearly what the *how* question amounts to in certain easy cases. An utterance of a sentence is generally made by a person, at a time and place, with a particular audience in mind. But all this means is that information about the environment in which an utterance is made can be exploited reasonably systematically by the hearer in identifying what the speaker said. It does not tell us *how* such information is integrated with semantic information to

yield interpretations, it just tells us what the result of the integration has to be for the hearer to get it right. A formal context provides nothing more than help for the theorist in *describing* the proposition expressed. The answer to the *how* question has to flow from a general theory of the ways various cognitive abilities produce interpretations of utterances.

<sup>92</sup> This being philosophy, someone is sure to disagree with this characterization. It might be argued, for example, that my father immediately grasped the proposition I expressed because a special use of ‘here’ has evolved in the weather game according to which it is understood as if it were an occurrence of the descriptive phrase ‘in my current location’. (One consequence of this position would be that in the context of the weather game I could say something true right now (in Reykjavík) by uttering ‘It is not necessary that if it snowed here today, then it snowed here today’ (different scopes for ‘here’ on the hypothesis in question, or one traditional use of ‘here’ and one special, descriptive, game use). My father’s task on this account would be to identify an location-dependent proposition that went beyond the proposition expressed. I see no merit to this view, only unpalatable modal and epistemological consequences, some of which could be dealt with, I suppose, by ‘actualizing’ (‘my actual, current location’). Anyway, I am not interested in pursuing this option.

<sup>93</sup> I am putting to one side the case of deferred ostension when, for example, my father points to south-west Iceland on his globe whilst uttering (2).

<sup>94</sup> Which is not to say that one could not cook up a scenario in which replying with (4) would have been less unacceptable, indeed quite pointed.

<sup>95</sup> See Grice (1989). Within the modification of Grice’s framework I favour, this would be a case of implying something *by uttering X* without implying it by *saying* whatever it was that was said (by uttering *X*). See Neale (2005, forthcoming).

<sup>96</sup> Multiple proposition theories have been popular of late, and Perry (1993) has done his fair share to motivate them. (See also Barwise and Perry (1983), Frege (1892), Grice (1989), Karttunen and Peters (1979), O’Rourke (1998), Neale (1999, 2001b), Stalnaker (1978).) Within the sort of pragmatist framework I favour, there does not seem to be much of a problem involved in saying that I would have expressed two propositions by uttering (4) in response to my father’s question as the framework is not beholden to the strictures governing traditional compositional theories of meaning. According to a traditional theory of the direct reference variety, relative to a context C the semantic content of ‘there’ in (4) is just a location which, like the semantic content relative to C of every other expression in (4), constitutes its contribution to the semantic content relative to C of (4) itself (i.e. its propositional content relative to C, the proposition it expresses relative to C). This effectively forces the traditional theorist to opt for a conventional implicature account or a presuppositional account of the speaker’s location relative to the location that is the semantic content of ‘there’ relative to C. Unless, of course, the traditional theorist maintains that there would have been a *double* reference to Reykjavík if I had uttered (4). Is that conceivable? See below.

<sup>97</sup> There is one context in which the locating of the speaker with respect to the place he is referring to with ‘there’ breaks down. Consider a philosophical discussion here in Reykjavík about the proposition I expressed when I uttered (1) or (2) or (3). Mike might say, “Stephen referred to Reykjavík and said of it that it was raining there.” The occurrence of ‘there’ in the sentence Mike uttered is surely interpreted as anaphoric on ‘it’, itself anaphoric on ‘Reykjavík’. It seems clear that locatives do have bound occurrences, just like pronouns:

- (i) [every politician]<sup>1</sup> charms some of the people who work with him<sub>1</sub>
- (ii) [every city]<sup>1</sup> charms some of the people who live there<sub>1</sub>.

(On the most plausible theories of anaphora, ‘him’ and ‘there’ in (i) and (ii) remain bound when the respective quantifiers are replaced by names such as ‘John’ and ‘Reykjavík’. (See Neale (2005) .) In (ii), ‘there’ can be replaced by ‘in it’ (if the nominal were ‘island’, ‘mountain’ or ‘planet’ rather than ‘city’, the appropriate substitution would be ‘on it’). There would appear to be no reflexive form of ‘there’, presumably as there are no suitable structures in which ‘there’ can be understood as bound by a subject locative:

- (iii) [every city]<sup>1</sup>/Reykjavík<sup>1</sup> is destroying itself<sub>1</sub>
- (v) [every city]<sup>1</sup>/Reykjavík<sup>1</sup> \*is going there\*<sub>1</sub>.

<sup>98</sup> See also Barwise and Perry (1983).

<sup>99</sup> See Chomsky (1986, 1995, 2000). The postulation of expressions that are aponic despite having syntactic rôles and semantic properties is surely no more or less problematic than the postulation of expressions that are asemantic despite having syntactic rôles and phonological properties (‘it’ in ‘it’s raining’, for example). The idea of an expression that is phonetically *and* semantically empty is harder to gets one’s mind around, and on the interpretation of Chomsky’s present framework I endorse—

syntax is whatever it is that relates PF and LF—the possibility of such an expression is straightforwardly excluded. The discovery or postulation of *any* linguistic expression constitutes a contribution to syntax and its existence is justified only if it is doing something at LF or PF. Consequently, the discovery or postulation of an *aphonic* expression must be justified by its rôle at LF. To this extent, it will contribute in one way to the project of producing a theory of utterance interpretation. The point should not be exaggerated, however. Discovering or postulating occurrences of a bound aponic PRO has very clear consequences for a theory of interpretation: an expression has been discovered or posited that is understood as a bound variable, effectively answering all questions about its interpretation on a given occasion, given a general account of binding. Contrast this with the discovery or postulation of an *indexical* aponic, one even more flexible in its interpretation than the indexical phonics ‘this’ or ‘that’ or ‘he’ (when used to make independent reference). The interpretation of an utterance of a sentence containing an occurrence of an aponic indexical is always going to be a full-fledged *pragmatic*, i.e. inferential matter, the semantics of the aponic itself placing only non-deterministic constraints on interpretation. This matter will be taken up shortly.

<sup>100</sup> Compare (3) with the following:

- (i) everyone<sup>1</sup> promised John [<sub>S</sub> PRO<sub>1</sub> to sing on Sunday]
- (ii) John asked everyone<sup>1</sup> [<sub>S</sub> PRO<sub>1</sub> to sing].

In (i), PRO would appear to be bound by the subject of ‘promise’; in (ii) it would appear to be bound by the object of ‘ask’.

<sup>101</sup> Famously, Davidson (1967) suggested that the ‘logical form’ of an English sentence containing an *n*-place action verb contains an *n*+1 place predicate, the additional argument position occupied by a variable ranging over events. The logical form of (i), for example, might be (ii),

- (i) Brutus stabbed Caesar
- (ii)  $(\exists x)(stabbed(Brutus, Caesar, x))$

where (ii) is read as something like ‘there is an event *x* such that *x* is a (past) stabbing of Caesar by Brutus.’ Question: Did Davidson originally intend this proposal as a claim in generative grammar about a level of syntactic structure, about *deep structure* as it was called at the time? Answer: That was not how he originally conceived of it. But when philosophers and grammarians traded ideas and began to explore the idea that a superficially *n*-place verb might be an *n*+1 place verb at deep structure or (later) at LF and to view his proposal as abstractly capturing facts about ‘real’ syntactic structure, he was prepared to see syntactico-semantic arguments for variables ranging over events at LF as lending support to his proposal.

<sup>102</sup> I deliberately refrain from listing Taylor with the people I called *linguistic pragmatists* in Neale (2004, 2005) because I am not entirely sure his position does not admit of an interpretation quite different from the one I am providing here. If the interpretation I offer here is accurate, then his position seems to me entirely correct. Which is not to say that I agree with Taylor on how to classify every parameter in every potential example. The more I look at Taylor’s paper, the more I think that what I have in mind by ‘blueprint’ in the paper just mentioned is what he has in mind by ‘semantic scaffolding’. That our positions might be closer than I once thought was in fact suggested to me by Taylor in conversation.

<sup>103</sup> Perry (2001) himself has commented on the appropriation.

<sup>104</sup> Stanley (2002a) renews his attack on Perry and unarticulated constituents without using ‘logical form’ in his initial definition. But see below.

<sup>105</sup> In more recent work, Stanley (2002a) is initially more cautious in his definition of unarticulated constituent, which does not contain the expression ‘logical form’:

an entity (object, property, or function) *e* is an unarticulated constituent relative to an utterance *u* if and only if (a) *e* is a constituent of the proposition . . . expressed by *u*, and (b) *e* is not the value of any constituent in the expression uttered in *u*, and (c) *e* is not introduced by context-independent composition rules corresponding to the structural relations between the elements in the expression uttered (2002a: 150 n 2).

But once Stanley gets down to business, ‘logical form’ in the sense he takes from syntactic theory is soon invoked. Perry is not explicitly listed amongst the *targets* of the more recent paper, however; Stanley says that “most prominently” his targets are

Kent Bach, Robyn Carston, François Récanati, Dan Sperber, and Deirdre Wilson . . . [who] hold that . . . the proposition expressed . . . contains . . . elements that are not the value [*sic.*] of any constituent of the sentence uttered, nor introduced by composing those values. Instead these elements are provided directly by context. Loosely following John Perry, I shall call such elements unarticulated constituents” (2002a: 150).

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The fact that Stanley says he is only “loosely” following Perry in this more recent work does not seem to bear on the matters I am discussing here. The looseness Stanley alludes to stems from the fact that some of the people he lists state particular underdetermination claims in terms of Mentalese, and from the fact that certain forms of underdetermination are not readily restated in terms of unarticulated constituents. It is important to recognize that the looseness Stanley alludes to does not stem from his introduction of the notion of ‘logical form’.

<sup>106</sup> Stanley (2002b: 367) and Stanley and Szabó (2000a: 247) explicitly say that a logical form is a phrase marker.

<sup>107</sup> See also Stanley and Szabó (2000a):

We will call the output of the syntactic processes that is visible to semantic interpretation a logical form. A logical form is a lexically and structurally disambiguated ordered sequence of word types, where word types are individuated by semantic and syntactic properties. Logical forms are phrase markers’ (2000a: 247).

Note the use of ‘phrase marker’. This passage (with an insignificant stylistic change) recurs in a more recent paper by Stanley (2002b: 367).

<sup>108</sup> Neale (1990, 1993, 2005, 2006). My position on the precise *nature* of these logical forms, known as LFs, has not remained constant however. In the 1993 paper I explored the idea that LFs are rich enough to be evaluated for truth and falsity, but elsewhere my position is that they do not carry enough information to be evaluable for truth or falsity, they are merely the grammar’s contribution to representations that have truth values.

<sup>109</sup> See, for example, Bresnan (1982, 2001), Gazdar, Pullum, Klein, and Sag (1982), Kaplan and Bresnan (1982), Sag and Wasow (1999). I do not mean to be *endorsing* any of these particular syntactic theories or suggesting that *Perry* endorses any of them. I am just pointing out that there are plenty of working syntacticians who reject logical forms in Stanley’s sense.

<sup>110</sup> PRO, for example, does not appear in case-marked positions (verbs in the infinitive do not assign nominative case to their subjects) but other aphonics appear only in case-marked positions; and different aphonics fall under different principles of the Binding Theory. On LF, see, for example, Aoun (1985, 1996), Baltin (1987), Chomsky (1981, 1986, 1995), Higginbotham (1980, 1983), Higginbotham and May (1981), Hornstein (1987), Huang (1982, 1995), Larson and Segal (1995), Ludlow (1989, 1995), May (1985), Neale (1994). Huang’s 1995 article (called ‘Logical Form’) provides a nice overview of the main issues.

<sup>111</sup> Stanley and Szabó (2000a) do not say the logical forms they are talking about are LFs either. Nor does Stanley (2002a, 2000b) in his more recent papers on the topic.

<sup>112</sup> In more recent work, Stanley says of the aphonic “pronominals” he is positing that their “existence can be demonstrated by purely syntactic tests” (2002: 150). In fact, the tests Stanley marshalled all involve *interpretation*.

<sup>113</sup> In the semi-formal, semi-English sentences Stanley uses to represent his ‘logical forms’, quantifiers have not been raised. Since he says so little about the syntax of ‘logical forms’ and gives virtually no structural information about the things he writes down as particular ‘logical forms’, it is hard to know whether the failure to have raised quantifiers is for expository simplicity or part of some undeclared empirical thesis.

<sup>114</sup> Stanley recently communicated to me that he does mean logical forms to be understood as LFs.

<sup>115</sup> Recall his talk on pp. 391-2 about the empirical discovery of “real structure.” See also Stanley and Szabó (2000a: 247). Stanley and Szabó say they realize that

some semanticists and philosophers use their semantic theories to interpret structures that differ greatly from the syntactic structures produced by plausible syntactic theories for natural language (2000a: 246).

And they lament the difficulty they see philosophers have in giving up the idea that

one can freely construct alternative semantic structures for various natural language sentences without being constrained by empirical evidence from linguistics. Such a view . . . is tantamount to the endorsement of the hypothesis that syntax is a superficial feature of language, detached from the way we understand the utterances of others. We find this hypothesis implausible in the extreme (2000a: 245).

See also Stanley (2002b: 367).

<sup>116</sup> It is incorrect to claim that those who accept UT employ the following general strategy in arguing for underarticulation:

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First, some linguistic construction is provided whose truth-conditional interpretation is mediated by context. Then, it is argued that it is inconsistent with current syntactic theory to postulate, in the logical form of the relevant construction, expressions or variables the semantic values of which context could provide (Stanley 2000: 398).

The truth of the matter is just this: some linguistic construction  $X$  is *noticed* whose truth-conditional interpretation *appears* to outstrip what is given by composing the semantic values of  $X$ 's parts (some of which are fixed only in context) in accordance with  $X$ 's syntactic structure. And in the absence of pre-existing reasons given by syntacticians for thinking there is some structural fact about  $X$  that has been *missed*, it would appear that the rôle of extra-linguistic considerations in fixing truth-conditional content goes beyond supplying values to a handful of indexical expressions. UT is not something that has been gleefully embraced in some intellectual game but something that a number of serious philosophers and linguists reluctantly accepted in the face of problematic examples and conceptual pressures, something they then sought to understand.

<sup>117</sup> There is, of course, a famous paper by Crimmins *and* Perry (1989) on unarticulated constituents (in the contents of attitude ascriptions) and cross-referencing confirms the existence of a position common to both of them individually.

<sup>118</sup> Récanati (2001) interprets Perry correctly:

To evaluate a statement of rain as true or false, Perry says, we need both a time and a place, but the statement 'It's raining' explicitly gives us only the two-place relation (supplied by the verb) and the temporal argument (supplied by the present tense). The location argument must be contextually supplied for the utterance to express a complete proposition (2001: 307-8).

<sup>119</sup> There is further distortion of Perry's proposal in Stanley's claim that,

According to the unarticulated constituent analysis, the structure of [(1)] is as in [(2)]. Therefore, its truth-conditions would be given by a clause such as:

R: "It is raining( $t$ )" is true in a context  $c$  if and only if the denotation of "rains" takes  $\langle t, l \rangle$  to the True, where  $l$  is the contextually salient location in  $c$ .

Clause R is a standard unarticulated constituent clause. It captures the intuition that the place variable [*sic.*] is supplied directly by context, rather than first to a variable in the logical form of [(1)]. (2000: 415).

If the first occurrence of 'variable' in the last sentence of this passage is an infelicitous hangover from a botched cut-and-paste, then the remark at least makes sense. (It seems plausible to me that Stanley, an editor, or a typesetter just slipped here.) But Clause R is certainly *not* a 'standard unarticulated constituent clause', and not Perry's in particular: it is a clause that can be maintained only by someone who holds that (1) has an LF that contains a *covert temporal variable*.

In a more recent paper, Stanley (2002a) argues against unarticulated constituents again and says the following, which may be intended to justify his 2000 description of Perry's position:

I have heard it said that, for Perry, an unarticulated constituent is one that is not the value of a *pronounced* element. But Perry (1986) argues for the thesis that there are unarticulated constituents of thoughts. If the values of phonologically null representational elements were unarticulated, then *every* semantic value of a mental representation would be an unarticulated constituent (2002a: 150 n. 1).

But this is quite unfair. The issue of whether or not there are unarticulated constituents of *thought* contents—*unprojected* constituents, as I called them earlier—is simply not to the point. When someone says, "for Perry, an unarticulated constituent is one that is not the value of a *pronounced* element," it should be clear to a charitable reader genuinely seeking to understand the remark (when made by a competent philosopher familiar with the issues) that the speaker is talking about unarticulated constituents of *the propositions we express by uttering sentences of natural language*. To deny this is rather like denying that someone who says, 'every bottle is clean,' when talking about the bottles he has been asked to clean, is saying something true on the grounds that there are some dirty bottles elsewhere in the world. (The matter of quantifier domain restriction is one that Stanley (2000, 2002a, 2002b), and also Stanley and Szabó (2000a), address, their position being that a nominal (e.g. 'bottle') 'cohabits' its syntactic nodes with an aphonic domain variable.)

<sup>120</sup> In more recent work, Stanley adds a fourth category, "context-dependent quantifiers such as 'many' and (perhaps) 'that'" (2002a: 150).

<sup>121</sup> See Chomsky (1981, 1986), Higginbotham (1983), Evans (1977, 1980), Heim (1982), Heim and Kratzer (1998), May (1985), Reinhart and Reuland (1991), Reuland (2001).

<sup>122</sup> See Heim and Kratzer (1998) and Neale (2005) for accessible but detailed discussion.

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<sup>123</sup> In more recent work, Stanley explicitly acknowledges this: “syntactic structure cannot simply be postulated on semantic grounds. Rather, evidence of a syntactic sort must be available” (2002b: 368).

<sup>124</sup> Nothing in Stanley’s (2002a, 2002b) more recent papers suggest there is any need for me to temper this claim.

<sup>125</sup> The purported binding does not require the subject of the main verb to be quantificational:

(4’’) John<sup>1</sup> wanted [<sub>S</sub> *x*<sub>1</sub> to sing].

(4’) and (4’’) attribute the same property to every man and John. The truth of (4’) requires that every man satisfy ‘*x* wanted *x* to sing’, and the truth of (4’’) requires that John satisfy it.

<sup>126</sup> I have suppressed various complexities for the sake of exposition.

<sup>127</sup> The claim that ‘I’ and ‘you’ are not bindable is not actually self-evident given that the notion of binding we are interested in is one needed to sustain talk of the LFs of sentences being the objects of semantic interpretation. It is arguable that the second occurrence of ‘I’ in ‘I know I am awake’ is bound by the first in the requisite sense.

<sup>128</sup> It is somewhat misleading to think of the difference between ‘I’ and ‘we’ as one of pure number. As Lyons (1969: 277) notes, the word ‘we’ usually has the force of (roughly) ‘I and one or more other persons’. The other persons may or may not be the addressee(s); some languages, however, use two phonologically unrelated pronouns for our ‘we’, according as the relevant persons distinct from the speaker are the addressees or not.

<sup>129</sup> It is arguable that ‘there’ can be bound. Recall the following perfectly well-formed and interpretable sentences:

- (i) Reykjavík<sup>1</sup> enchants many people who live there<sub>1</sub>
- (ii) [every city]<sup>1</sup> enchants some people who live there<sub>1</sub>

<sup>130</sup> For discussion, see Kaplan (1989a) and Perry (2001).

<sup>131</sup> Differences signalled by choice of honorific, e.g. French, *tu* and *vous*, may be thought to signal different ‘perspectives’ of a sort, involving social distance.

<sup>132</sup> There is the vexed matter, of course, of whether the gender of a pronoun (even a bound one) contributes systematically to the truth conditions of what is said.

<sup>133</sup> As Mark Sainsbury puts it,

In using an indexical, one exploits a perspective on the world. One locates an object by reference, ultimately, to one’s own position in space or time. In interpreting a use of an indexical, one needs to locate its user’s perspective within one’s own. . . . One needs to identify the perspective, not suppress it. (2002: 146)

See also Colin McGinn:

All the [essential] indexicals are linked with I, and the I mode of presentation is subjective in character because it comprises the special perspective a person has on himself. Very roughly, we can say that to think of something indexically is to think of it in relation to *me*, as I am presented to myself in self-consciousness (1983: 17).

<sup>134</sup> If Russell is right, Reykjavík is not articulated by the description, unlike Iceland and the property of being capital.

<sup>135</sup> Of course one can use *other* words with ‘loke’ to indicate perspective, ‘here’, ‘there’, ‘come’, ‘go’, ‘bring’, ‘take’, and so on. The verbs just mentioned bring up some interesting locative issues. First, there are dialectal differences. For most speakers of British English, ‘bring’ and ‘take’ are perspectival in a way they are not for most speakers of American English. Consider (i) and (ii):

- (i) Bring the receipts to the bank
- (ii) Bring the luggage out to the car.

If I am the speaker, (i) and (ii) are both bad for me unless I am already at the bank or out by the car (or at least think I will be by the time, or very close to the time, the addressee arrives with the requested items). *Bringing to* is towards, *taking to* is away from, just as *coming* is towards and *going* is away from. Not so for many speakers of American English, for whom (i) and (ii) are fine even if they never intend to set foot near a bank or car again. (Matters are complicated by the fact that perspective transfer is possible in an almost logophoric way.)

<sup>136</sup> See Chomsky (1980, 1981, 1995, 2001).

<sup>137</sup> The existence of an aponic, aperspectival wholly indexical expression functionally quite similar (but not identical to) to (11) is the heart of Stanley’s account of quantifier incompleteness or quantifier



domain restriction. For the syntactic details, he directs the reader to Stanley and Szabó (2000). (See also Stanley (2002b) for a schematic account.) The interpretive incompleteness associated with the utterance of a DP is to be explained on the assumption that it contains a complex aphonic domain variable “assigned” a value “by context” and composition. We can call this a syntactic proposal with semantic import, or a semantic proposal implemented syntactically, it doesn’t matter. What is key, however, is that it has a very clear *syntactic* dimension. Although the variable is syntactically real, it is not attached to, dominated by, or associated with either of the quantificational nodes, D (‘the’) or DP (‘the table’), in ‘the table’ as one might have thought; rather, it ‘cohabits’ a node with the common noun N (‘table’). The variable is complex element they represent as  $f(i)$  a compound of two variables, one individual,  $i$ , the other functional,  $f$ :

(i)  $[_{DP} \text{ the } [_{NP} [_{N} \langle \text{man}, f(i) \rangle ]]]]$

I take the liberty of italicizing Stanley and Szabo’s variables in accordance with my own policy of italicizing aphonics. And I take the liberty of setting out their proposal assuming the DP hypothesis; nothing turns on this.) Here is the idea:

The value of ‘ $i$ ’ is provided by context, and the value of ‘ $f$ ’ is a function provided by context that maps objects onto quantifier domains. The restriction on the quantified expression ‘every man’ . . . relative to context would then be provided by the result of applying the function that context supplies to ‘ $f$ ’ to the object that context supplies to ‘ $i$ ’ (2000a: 251-2).

They go on:

Since we are taking quantifier domains to be sets, relative to a context, what results from applying the value of ‘ $f$ ’ to the value of ‘ $i$ ’ is a set. Relative to a context, ‘ $f$ ’ is assigned a function from objects to sets. Relative to a context, ‘ $i$ ’ is assigned an object. The denotation of ‘ $\langle \text{man}, f(i) \rangle$ ’ relative to a context  $c$  is then the result of intersecting the set of men with the set that results from applying the value given to ‘ $f$ ’ by the context  $c$  to the value given to ‘ $i$ ’ by  $c$ . That is (suppressing reference to a model to simplify exposition), where ‘ $[\alpha]_c$ ’ denotes the denotation of  $\alpha$  with respect to the context  $c$ , and ‘ $c(\alpha)$ ’ denotes what the context  $c$  assigns to the expression  $\alpha$ :

$[\langle \text{man}, f(i) \rangle] = [\text{man}] \cap \{x: x \in c(f)(c(i))\}$ . (2000a: 253)

It is for expository simplicity only that Stanley and Szabo treat quantifier domains as sets, however. They make it clear that in order to deal with a certain form of counterexample, on their final theory quantifier domains are “intensional entities such as *properties*, represented as functions from worlds and times to sets.” (2000a: 252).

The problem with this proposal is that from the point of view of a theory of utterance interpretation it is, in fact, *merely syntactic*. The values “context” “assigns” to the individual variable ‘ $i$ ’ and the functional variable ‘ $f$ ’ in any particular case are unconstrained. Neither ‘ $i$ ’ nor ‘ $f$ ’ is perspectival or descriptive. Thus ‘ $f(i)$ ’ is wholly aperspectival, wholly adescriptive, and wholly aphonic. Since it concerns the interpretation of nominals, the theory posits  $n$  occurrences of the wholly aphonic, wholly aperspectival, wholly indexical expression  $f(i)$  as part of the logical form of every sentence containing  $n$  common nouns. On this account, interpreting an utterance of a sentence containing  $n$  nouns involves identifying the values “context” has “assigned” to each of the  $n$  occurrences of ‘ $f(i)$ ’ via identifying the values “context” has “assigned” to  $n$  occurrences of the wholly aperspectival, adescriptive, aphonic expression ‘ $i$ ’ and  $n$  occurrences of the wholly aperspectival, adescriptive, aphonic expression ‘ $f$ ’. So the proposal is nothing more than an pointlessly formal and absurdly syntactic way of saying that interpreting an utterance of, say,

(ii) every philosopher explained several theories to every linguist

involves identifying which philosophers, which theories, and linguists are being talked about. But that is precisely what the explicit-about approach involving unarticulated constituents has been saying all along, but without the syntactic palava. It will not do to claim, with Stanley (2002a: 158, n 12) that the explicit-about approach “simply amounts to a re-description of the phenomenon to be explained, rather than an account of it”, if the implication is that this is less of an account than positing an aphonic, aperspectival, adescriptive domain variable that takes on whatever value is required to make things work out correctly. Neither the explicit nor the implicit approach, nor Stanley and Szabó’s contextual variable approach constitutes a *theory* in any sense relevant to a theory of interpretation. Whichever way we go here, all of the work is done by pragmatic inference. A theory that posits the existence of aphonic aperspectival, adescriptive domain variables in syntax is essentially a *syntactic* proposal concerning the LF of a sentence that may be uttered on different occasions to say different things, and it should not be confused with a theory that explains *how hearers* manage to interpret nominals. Interpretation of any postulated context-sensitive expression on a given occasion of utterance is itself a *pragmatic, richly inferential* matter, the product of integrating linguistic and non-linguistic information, something that is done by a pragmatic theory. (However you look at it, it’s magic, and it betrays a

misunderstanding of the issues to complain, that on the explicit approach the hearer performs an act of magic no counterpart of which the hearer performs on an approach that requires the hearer to supply properties or sets or whatever as values for aphonically aperspectival, ad-descriptive domain variables.) As far as interpretation of incomplete matrices is concerned, the only substantive difference between the unarticulated constituent theorist and someone who postulates aphonically aperspectival, ad-descriptive elements cohabiting nodes with common nouns is that the latter insists that the search for and integration of contextual information in the interpretation process is triggered syntactically. I know of no good argument that an item in syntax is *necessary* for such a search and/or for such integration to take place—such an argument would have to come from psychology. Merely pointing to the well-known phenomenon of ‘implicit binding’ certainly does not *demonstrate* the existence of aphonically variables. (See below.)

<sup>138</sup> What about ‘Rainy days and Mondays always get me down’? A quantified case to be sure.

<sup>139</sup> Alternatively, one might pursue the idea of an aphonically *event* variable in logical form. This was, in fact, the way Davidson originally suggested dealing with weather sentences in the mid-1990s, prompted by a talk Perry gave at Berkeley on unarticulated constituents. The logical form of a weather sentence, Davidson suggested, is like the logical form of an action sentence, it contains an event variable to which temporal predicates (‘today’, ‘at midnight’ etc.), locative predicates (‘in the bathroom’, ‘in Reykjavik’), and perhaps even manner predicates (‘with great intensity’) may be attached. Of course this involves positing in addition to an aphonically event variable in the logical form of, say, (1), an aphonically locative *predicate*, itself ‘indexical’ in so far as its interpretation could vary from utterance to utterance (e.g. it could be understood as ‘in Reykjavik’, ‘in the Berkeley hills’, and so on), and for this reason Davidson thought the price too high. To the best of my knowledge, Davidson never came up with an account of Perry’s examples he found satisfactory.

<sup>140</sup> It would smack of desperation to say that for certain verbs it is entirely optional whether *loc* has to have a referent on a particular occasion use. That would require coming up with compelling cases in which a particular location is required in order to evaluate the proposition expressed for truth or falsity. We failed in that quest earlier, and I hazard this was not for lack of imagination in constructing examples. Cf. Ósk and the tea-pouring.

<sup>141</sup> I cannot have been alone in being startled upon first reading Stanley’s main claim. The notion of implicit binding is so well-known, so familiar to anyone who has worked on donkey anaphora, at least since Evans’s (1977) pioneering work on the phenomenon. Evans explains the interpretation of various examples in terms of (predicted) implicit binding but nowhere says this forces us to acknowledge aphonically variables in the actual syntactic structures of sentences. To get from implicit binding to aphonically variables in syntax requires an *argument*, presumably a very complex one. Let me be very clear about one thing. I am all in favour of Stanley constructing a theory in which the interpretation of, say, (2) proceeds by way of interpreting an aphonically variable in its actual syntactic structure; what I am opposed to is the dismissive idea that the mere presentation of such a theory is *ipso facto* a proof of its correctness and a demonstration of the failure of any theory not positing such a syntactic structure.

<sup>142</sup> “The output of the syntactic processes that is visible to semantic interpretation” (Stanley and Szabó (2000a: 247)).

<sup>143</sup> Barwise and Cooper (1980), Higginbotham and May (1981), May (1977), Neale (1990). Alternatively one could use the binary quantifiers of Davies (1981), Evans (1977, 1982) and Wiggins (1980).

<sup>144</sup> Notice that the problem of how to unify the semantics of transitive verbs, prepositions, and any other expressions that, in surface syntax at least, may take singular terms and quantifiers as arguments disappears on this account, as the variables left by quantifier movement are singular terms.

<sup>145</sup> Why the parenthetical qualification? Because it is arguable that the gender and number of a bound pronoun is not semantically inert. For simplicity, in (5’) I have suppressed the fact that relative clauses, even when truncated as in (5), are typically seen as introducing more binding, relative pronouns acting as abstraction operators. See Quine (1960), Evans (1977), Heim and Kratzer (1998).

<sup>146</sup> Neale (1990, 2004).

<sup>147</sup> It should be clear that relativization is narrower than variation *per se*. Example (3) exemplifies variation without relativization in my sense. With some quantifiers, variation may be induced only via relativization. Consider (i):

- (i) everyone mocks the mayor.

The semantics of ‘the’, on Russell’s account, involves uniqueness, so read as (i’) there is no variation:

- (i’) [*every*  $x_1$ : *person*  $x_1$ ] [*the*  $x_2$ : *mayor*  $x_2$ ] ( $x_1$  *mocks*  $x_2$ ).

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But of course the incomplete description in (i) can be understood as relativized:

(i'') [every  $x_1$ : person  $x_1$ ] [the  $x_2$ :  $x_1$ 's mayor  $x_2$ ] ( $x_1$  mocks  $x_2$ ).

Further familiar examples are discussed below. For discussion of this topic, see Beghelli, Ben-Shalom, and Szabolcsi (1996).

<sup>148</sup> Geach (1962, 1972), Heim (1988), Heim and Kratzer (1998), Neale (2005), Partee (1975), Salmon (1986, 1992), Soames (1990, 1994), Wiggins (1976).  $\lambda$  is the *lambda* (or *abstraction*) operator. On the usage adopted here,  $\lambda x(x$  snores) and  $\lambda x(x$  loves  $x)$  are one-place predicates. Thus *John*( $\lambda x(x$  loves  $x)$ ) is a sentence.

<sup>149</sup> Why do I say “in some way to be elucidated”? Hasn't enough been said? Not yet. In order to explicate binding by a singular term we need to mirror the *abstraction* introduced by quantification that explicates binding by quantifiers. (See Soames 1989 for discussion.) We could do this by treating names as quantifiers, perhaps in the manner of Montague (1973) or Barwise and Cooper (1981). If one is determined to resist the idea that names are quantifiers, the relevant abstraction can be captured in other ways. One increasingly popular idea is that (i) the intransitive verb ‘snores’ is understood as having the structure of the formal device  $\lambda x(x$  snores); and the transitive verb ‘loves’, is understood as having the structure of the formal device  $\lambda y(\lambda x(x$  loves  $y))$ ; (ii) in consequence, the predicate ‘loves himself’ really has a structure something like that of the formal predicate  $\lambda x(x$  loves  $x)$ , assuming an interpretive principle for the reflexive pronoun that distinguishes it from its non-reflexive counterparts in forcing  $y=x$ , so to speak, and (iii) to say that a pronoun  $\beta$  is bound by some expression  $\alpha$  is to say that  $\alpha$  merges with (is concatenated with) verb phrase whose  $\lambda$ -operator binds  $\beta$ . See Heim and Kratzer (1998), Neale (2005).

<sup>150</sup> See Soames (1990, 1994).

<sup>151</sup> And if that is right, in order to preserve as much strict compositionality as possible, shouldn't we see all predicates as ultimately devices of abstraction, ‘snores’ expressing  $\lambda x(x$  snores), ‘loves’ expressing  $\lambda y(\lambda x(x$  loves  $y))$ , and so on?

<sup>152</sup> Castañeda (1966, 1967, 1968), Partee (1975), Salmon (1986, 1992), and Soames (1989, 1990, 1994).

<sup>153</sup> See Soames (1989, 1994).

<sup>154</sup> For discussion of VP-deletion, see Keenan (1971), Sag (1976), Williams (1977). For more recent, user-friendly discussions of linguistic ellipsis, see Heim and Kratzer (1998) and May (2002).

<sup>155</sup> Stanley and Szabó (2000a) appear to accept this, saying of VP deletion that it is “a syntactic phenomenon, due to some sort of syntactic rule of reconstruction or copying, or PF deletion under a syntactic parallelism condition” (226, n. 9).

<sup>156</sup> See Dosen (1988) and Peregrin (1995, 2000).

<sup>157</sup> See the papers in Boettner and Thümmel (2000).

<sup>158</sup> In a footnote, Stanley (2000: 400 n 13) suggests that the substance of his main claim is unaffected by the existence of variable-free systems. In variable-free systems, he says, (i) variables are eliminated in favour of operators, and (ii) whenever his own theory postulates aphonic variables in the syntax of some sentence  $X$ , a variable-free theory will have to posit aphonic operators or functionals somewhere in  $X$ . Several issues could be taken up here, but I will mention just two. First, Stanley's remarks on this topic make it look as though the substance of his main claim is that there must be aphonics in syntax, not the original claim (that every purported unarticulated constituent is the value assigned to some aphonic item in syntax). Second, the principle motivation for variable-free systems is a desire to run a genuinely compositional semantics on surface structure and overcoming well-known compositional difficulties for systems containing bound variables, phonic or aphonic. To the best of my knowledge, no-one has presented any sort of argument for the thesis that variable-free systems cannot be produced without positing aphonic operators in syntactic structure. The truth of the thesis is not obvious to me, nor, I think, is its truth presupposed in the variable-free tradition. It is an interesting open question whether a genuinely compositional semantics can be run on surface forms, and of course much turns on what is understood by “compositional”. This is an area fraught with technical difficulties.

<sup>159</sup> A pronoun can be bound only by an expression that c-commands it.

<sup>160</sup> On Evans's account, the larger group to which E-type pronouns belongs also includes descriptive names such as ‘Julius’, introduced by a description such as ‘the man who invented the zip’. See Evans (1982, 1985) for discussion.

<sup>161</sup> I say Evans's E-type theory is “meant to deliver” the correct relativized readings of (20) and (21) because certain contortions are required to make the theory fly. To speak very loosely, the relativized description that fixes the relativized reference of the pronoun must be invoked at the right point in the

interpretation in order to get the required relativization. There are various problems here. See Soames (1989), Neale (1990, 2001). These problems do not affect the D-type theory discussed below.

<sup>162</sup> D-type theories are presented by Cooper (1979), Davies (1981), Ludlow and Neale (1991), Neale (1990, 1993), and Parsons (1978). One of the main reasons for going D-type is that scope ambiguities of the sort found with overt descriptions can now be explained:

- (i) The mayor is a republican. He used to be a democrat.
- (ii) A man robbed Mary. The FBI think the local police think he is from out of town.

<sup>163</sup> Just as there is no commitment in the D-type idea itself to LFs containing spelled out descriptions where PFs contain just pronouns, so there is no commitment in the idea to the view that the description for which a particular D-type pronoun goes proxy can be extracted by some automatic procedure from the immediate linguistic context. Neale (1990, 1993, 1994) toyed with the idea of specifying the understood descriptive content of D-type pronouns using a simple algorithm and pointed to problems suggesting retrieval was a looser pragmatic matter, perhaps guided or shaped by formal factors and strong interpretive heuristics. A default procedure or heuristic seems to yield extremely good results in very many cases.

What should LF theorists who advocate D-type accounts of unbound anaphora say about the LFs of (21), (21') and (21'')? This is something I took up in Neale (1993). Given the rôle LFs are supposed to play in syntactic theory, I suggest roughly the following:

- (i) [every<sup>1</sup> villager<sub>1</sub> who<sup>3</sup> [[[just one]<sup>2</sup> donkey<sub>2</sub>]<sup>2</sup> [s e<sub>3</sub> owns e<sub>2</sub>]]<sub>1</sub>]<sup>1</sup> [it]<sup>2</sup> [s e<sub>1</sub> feeds e<sub>2</sub> at night]
- (i') [every<sup>1</sup> villager<sub>1</sub> who<sup>3</sup> [[[just one]<sup>2</sup> donkey<sub>2</sub>]<sup>2</sup> [s e<sub>3</sub> owns e<sub>2</sub>]]<sub>1</sub>]<sup>1</sup> [the<sup>2</sup> donkey<sub>2</sub>]<sup>2</sup> [s e<sub>1</sub> feeds e<sub>2</sub> at night]
- (i'') [every<sup>1</sup> villager<sub>1</sub> who<sup>3</sup> [[[just one]<sup>2</sup> donkey<sub>2</sub>]<sup>2</sup> [s e<sub>3</sub> owns e<sub>2</sub>]]<sub>1</sub>]<sup>1</sup> [the<sup>2</sup> donkey<sub>2</sub> e<sub>1</sub> owns e<sub>2</sub>]<sup>2</sup> [s e<sub>1</sub> feeds e<sub>2</sub> at night].

In (i) 'it' has been raised, which goes hand-in-hand with its interpretation as a quantifier, indeed as a description, a full descriptive content for which the speaker expects the hearer to come up with pragmatically, just as with the incomplete description in (i').

<sup>164</sup> *Descriptions*, pp. 182 and 266, cited and used on their p. 257.

<sup>165</sup> The arguments used by Stanley (2002a, 2002b) assume the same. The plot thickens here. First, Stanley and Szabó (2000a) fail to see their alleged refutation of the 'explicit' approach to incomplete descriptions would, if successful, *ipso facto* be a refutation of the theory of D-type anaphora they appeal to in their argument against Westerståhl, as D-type pronouns are essentially limiting cases of incomplete descriptions. However, Stanley and Szabó do not actually present any argument against the explicit approach: they attack an implausible syntactic implementation of that approach I doubt anyone has ever held, according to which a sentence whose PF contains an incomplete description like 'the table' contains a complete description such as 'the table at which we are now sitting' at LF. (For discussion, see Neale (2004).) But this misfire does not actually get them off the hook. Either they construe the D-type theory they claim to be using in their argument as involving the appearance of definite descriptions at LF where there are only D-type pronouns at PF, or they do not. Either way, there is trouble. If they do, then their argument against the approach they *mistake* for the explicit approach will be *ipso facto* an argument against what they *take* to be the D-type theory they appeal to. If they don't, then they are accepting that there can be relativization without variable-binding.

<sup>166</sup> In a paper that Stanley points us too for more detail, Stanley and Szabó (2000a) say they adopt a generalized quantifier account of determiners (of the sort proposed by Barwise and Cooper (1981) and others) according to which they express relations between sets. Stanley (2000: 419, n 31) takes the restrictions on quantifier domains to be intensional entities.