Thought Without Representation

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I see a cup of coffee in front of me. I reach out, pick it up, and drink from it. I must then have learned how far the cup was *from me*, and in what direction, for it is the position of the cup relative to me, and not its absolute position, that determines how I need to move my arm. But how can this be? I am not in the field of vision: no component of my visual experience is a perception of me. How then can this experience provide me with information about how objects are related to *me*?

One might suppose that while no component of my perception is of me, some component of the knowledge to which it gives rise must be. Perhaps I am able to infer where the cup is from me, because I know how things look, when they are a certain distance and direction from me. Without a component standing *for me*, how could this knowledge guide my action, so that it is suited to the distance the cup is *from me*?

But some philosophers think that our most primitive knowledge about ourselves lacks any such component: basic self-knowledge is intrinsically selfless. Something like this was presumably behind Lichtenberg's remark, that Descartes should have said "It thinks" rather than "I think." And according to Moore, Wittgenstein approved of Lichtenberg's remark:

The point on which he seemed most anxious to insist was that what we call "having toothache" is what he called "a primary experience ..."; and he said that "what characterizes 'primary experience' is that in its case, "'I' does not denote a possessor." In order to make clear what he meant by this he compared "I have a toothache" with "I see a red patch"; and said of what he called "visual sensations" generally ... that "the idea of a person does not enter into the description of it, just as a (physical) eye does not enter into the description of what is seen"; and he said that similarly "the idea of a person" does not enter into the description of "having toothache." ... He said that "Just as no (physical) eye is involved in seeing, so no Ego is involved in thinking or having toothache"; and he quoted, with apparent approval, Lichtenberg's saying, "Instead of 'I think' we ought to say 'It thinks'" (Moore 1959, 302–03).

I am sympathetic with Wittgenstein's view as I interpret it. There is a kind of self-knowledge, the most basic kind, that requires no concept or idea of oneself. The purpose of the present paper, however, is not to argue directly for this view, but to try to see how it could be so, by seeing how it is possible to have information about something without having any "representation" of that thing. I begin by studying something a bit more open to view, the possibility of talking about something, without designating it.

Ι

It is a rainy Saturday morning in Palo Alto. I have plans for tennis. But my younger son looks out the window and says, "It is raining." I go back to sleep.

What my son said was true, because it was raining in Palo Alto. There were all sorts of places where it was not raining: it does not just rain or not, it rains in some places while not raining in others. 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. 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" supplies a time, the time at which the statement was made. "It" does not supply anything, but is just syntactic filler.¹ 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. Where did it come from?

In approaching this question, I shall make five initial assumptions, which together will provide a framework for analysis. First, I shall assume that the meaning of a declarative sentence S can be explained in terms of a relation between uses of S and what is said by those uses—the propositional content of the statement made. Consider the declarative sentence I am sitting. Different people at different times say quite different things by using this sentence. What they say depends in a systematic way on the context—the facts about the use. The pertinent facts in this case are the user and the time of use. An explanation of the meaning of I am sitting quite naturally takes the form of a relational condition:

A use u of I am sitting expresses a proposition P iff there is an individual a and a time t such that

- (i) a is the speaker of u
- (ii) t is the time of u
- (iii) P is the proposition that a sits at t.

The second assumption is that the propositions expressed by statements—at least the simple sorts of statements we shall consider here have *constituents*. Their constituents are the objects (relations, individuals, times, places, etc.) that they are about. Thus the constituents of my statement that I am sitting are me, the present moment, and the relation of

¹Note that if we took "It" to be something like an indexical that stood for the location of the speaker, we would expect "It is raining here" to be redundant and "It is raining in Cincinnati but not here" to be inconsistent.

sitting.

The third assumption is that a declarative sentence has significant components, the meanings of which can be explained in terms of the relations between uses of these components and the objects those uses stand for or designate. Let us suppose that in our sentence the components are the three words, I, am, and sitting. We can explain their meanings as follows:

A use u of I designates an object a, iff a uses I in u; a use u of am designates a time t, iff t is the time at which u occurs; a use u of sitting designates a relation R, iff R is the relation sits(a,t).

In the first two cases, facts about the use affect the object designated. This is not so in the third case; no variable for the use appears on the right of the "iff." Expressions of the first sort we call "context-sensitive"; those of the second we call "context-insensitive," or "eternal." In this example, each of the components is a separate word, but this is not necessary, and is not even plausible in the case of this simple sentence. A more plausible syntactic analysis would also find the component verb phrase *is sitting*. This we could take to designate a more complex object, say, a propositional function:²

A use u of is sitting designates a propositional function P(x) iff there are u', u'', R, and t such that

- (i) u' is a use of *is* that designates *t*, and u' is the initial part of *u*
- (ii) u'' is a use of *sitting* that designates R, and u'' is the second part of u
- (iii) for any a, P(a) is the proposition that R(a, t).

The fourth assumption is that the meaning of a sentence is systematically related to the meanings of its components. In the simple example I have

²That is, a function whose values are propositions, not one whose arguments are, as the phrase might suggest to those outside philosophy.

given, we can see what the relationship is (ignoring the verb phrase, for simplicity):

A use u of I am sitting expresses the proposition P iff there are u', u'', u''', a, t, and R such that:

- (i) u' is a use of I that designates a
- (ii) u'' is a use of am that designates t
- (iii) u''' is a use of *sitting* that designates R
- (iv) u consists of u', followed by u'', followed by u'''
- (v) P is the proposition that R(a, t).

The fifth assumption is that a statement made by the use of a sentence is true, just in case the proposition the statement expresses is true.

The picture presented by this approach suggests a principle, which I shall call *homomorphic representation*:

Each constituent of the proposition expressed by a statement is designated by a component of the statement.

It is this principle, to which my son's remark is counterexample. The propositional content of his use of *It is raining* was that it was raining, at that time, in Palo Alto. But no component of his statement designated Palo Alto.

Π

We saw that there were basically two ways in which an articulated constituent is supplied. It can be built into the meaning of the expressions that it supplies with a given constituent in any context of use, as we supposed to be the case with *sitting*. Or the meaning can simply identify a certain relationship to the speaker, a role that different objects might play, in different contexts of use. In the case of I the relationship is that of identity. I suggest that unarticulated constituents are also supplied in these two ways. They can be fixed by meaning, once and for all, or the meaning may just fix a certain relationship that the unarticulated constituent has to the speaker. That is, we can have eternal, and context-sensitive unarticulated constituents.

To this remark, one might reasonably ask what meaning it is that either fixes the unarticulated constituent or fixes the relationship it has to the speaker. After all, the problem is that there is no component of the sentence that designates the unarticulated constituent; hence, it seems inappropriate to begin by dividing the ways that it gets designated.

The unarticulated constituent is not designated by any part of the statement, but it is identified by the statement as a whole. The statement is *about* the unarticulated constituent, as well as the articulated ones. So, the theory is (i) some sentences are such that statements made with them are about unarticulated constituents; (ii) among those that are, the meaning of some requires statements made with them to be about a fixed constituent, no matter what the context; whereas (iii) others are about a constituent with a certain relationship to the speaker, the context of use determining which object has that relationship.

It is raining clearly has a meaning of the second sort. Let us assume, for a moment, that the unarticulated constituent for any use of this sentence is simply the place at which the use takes place. Then an analysis of its meaning would be:

A use u of It is raining expresses a proposition P iff there are u', u'', u''', t, p, and R such that

- (i) u' is a use of It
- (ii) u'' is a use of *is* that designates t
- (iii) u''' is a use of raining that designates R
- (iv) u occurs at p

- (v) u consists of u', followed by u'', followed by u'''
- (vi) P is the proposition that R(p, t).

Clause (iv) pertains to the unarticulated constituent. Unlike clauses (ii) and (iii), it does not pick up a constituent designated by a component, but simply goes straight to the context, in this case, the facts about where u occurred.

It will be useful, to have a term for that part of the context, which determines the unarticulated constituent. I shall use the term "background" for this. The background facts in this case are those about the location of the statements.

An analysis of *It is raining here* would differ, just that instead of clause (iv) we would have:

(iv) u'''' is a use of *here* that designates p

(with the rest of the condition changed as necessary to accommodate u''''). The place would then be an articulated rather than an unarticulated constituent of the proposition.

The supposition that *It is raining* simply leaves unarticulated what *It is raining here* articulates is not very plausible, however. Suppose, for example, that my son has just talked to my older son in Murdock on the telephone, and is responding to my question, "How are things there?" Then his remark would not be about Palo Alto, but about Murdock. All we should probably say as part of our analysis of the meaning of *It is raining* is simply:

(iv) u is about p.

This is not to deny, of course, that a good deal more could be said concerning the factors that determine which places a use of this sentence is about. The intentions and beliefs of the speaker are clearly key factors. My son's belief was about Murdock, and his intention was to induce a belief in me that was about Murdock by saying something about Murdock. Here 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.

My example of context-free provision of an unarticulated constituent is somewhat fanciful. Suppose there is a dialect, spoken only by very chauvinistic San Franciscans. In this dialect, the sentence *It is raining* is used to state the proposition that it is raining, at the moment of utterance, in San Francisco. (*It is raining here* is used for other locales the speakers of this dialect might find themselves in.) This is the proposition a speaker of this dialect asserts with *It is raining*, no matter where in the world it is spoken. San Francisco is then an unarticulated constituent of the propositions expressed by statements using this sentence. It is determined in a context-insensitive way.

III

Simple-minded as it is, this little theory establishes, I think, that 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.

Still, it might seem that to correctly use and understand statements with unarticulated constituents, we must have, or be able to provide, expressions that designate them. When I hear my son say "It is raining," and learn thereby that it is raining in Palo Alto, it seems I must have understood that his remark was about Palo Alto. And to do this, it seems I must have in my mind some concept or idea of Palo Alto, with which I can identify it as the right place. And as we noted, it seems that what made his remark about the weather in Palo Alto, in one case, and the weather in Murdock, in the other, was his intentions and beliefs—what he had in mind, as we might say.

I shall argue that this is not quite right, although not quite wrong, either. We can imagine linguistic practices that do not require their participants to have any way of articulating some of the constituents of the propositions we would take to be the content of their statements. The basic idea is that the unarticulated constituents earn their role in the interpretation of statements by their place in the role of the thoughts that such statements express and give rise to, rather than by being designated by components of those thoughts. But once we have imagined all of this, a slightly different way of handling things will suggest itself.

Consider a small isolated group, living in a place we call Z-land. Zlanders do not travel to, or communicate with, residents of other places, and they have no name for Z-land. When a Z-lander sees rain, he will say to others not in a position to look outdoors, *It is raining*. His listeners then act appropriately to there being rain in Z-land: they close the windows in Z-land, cancel plans for Z-land picnics, and grab umbrellas before going into the Z-land out-of-doors. They have no other use for "It is raining." They do not call their sons in far-off places, or listen to the weather news, or read newspapers with national weather reports.

It would be natural to treat Z-landers' uses of the sentence *It is raining* as having Z-land as an unarticulated constituent. But what secures Z-land, rather than, say, San Francisco, as the unarticulated constituent of their discourse about rain? It is simply that the perceptions that give rise to the beliefs that *It is raining* expresses are perceptions of the weather in Z-land, and the activities, to which the belief gives rise, are suited to rain in Z-land. Z-land is a constituent of the practice, or language game, in which the sentence *It is raining* plays a role. There is no need to postulate a concept or idea of Z-land as a component of their thought, to secure the connection

to Z-land. The connection is secured by the role of the whole belief in their lives.

In the transaction we imagined with my son, there were three places that were relevant. First, there was the place his remark, my source of information, was about. Second, there was the place the belief I acquired from hearing him was about. Finally, there was that place rain in which would make appropriate the action to which my belief led me. As imagined, Palo Alto played all three roles. My son's remark was about the weather in Palo Alto, I took it this way, and going back to sleep was appropriate to rain in Palo Alto. But each of these connections might be broken. In a slightly different example, I would be misinterpreting a remark of my son's about rain in Murdock. His remark would be about one place, my belief about another. A little bit more elaborate change is required to break the second connection. Suppose we have spent the night in Sacramento, with the intention of driving back to Palo Alto early in the morning, so we can play tennis. My son looks out the window, and says "It is raining." I take him, correctly, to be telling me about the weather where we are. But I have forgotten where we are. The action I take is appropriate to there being rain in Palo Alto, for if it were raining there, there would be no reason to leave early. But it is not appropriate to there being rain in Sacramento.

Given that we get information about the weather in various places, and have a repertoire of actions appropriate to weather in various places, our weather beliefs have a coordinating job to do, a job mine did satisfactorily in the original case, and unsatisfactorily in those we have just imagined. If our beliefs are to successfully guide our actions in light of the weather information we receive, they must reflect not only the kind of weather but also the place of the weather.

The Z-lander's beliefs have a simpler job to do. All of the information (or misinformation) they get about the weather, through observations or reports of others, is about Z-land. All of the actions they perform, in light of their weather beliefs, take place in Z-land, and are appropriate or not depending on the weather there. The connection between the place about which they receive weather information, and the place whose weather determines the appropriateness of their actions, is guaranteed by their life-style, and need not be coordinated by their beliefs.

Some psychologists and philosophers find it useful to postulate a "language of thought," a system of internal representations, with a syntactic structure and a semantics that is involved in belief, desire, and other mental activities and states. One goal of the present investigation is to develop concepts that will help us to understand the motives for attributing structure to thought, and the extent to which linguistic structure is the appropriate hypothesis. So I do not want to commit myself to any very determinate version of the language of thought. Still, we can use this hypothesis, bracketed, so to speak, to make the present point: there is no reason that thoughts that employ representations in the language of thought should not have unarticulated constituents, just as statements that employ sentences of natural language do.

\mathbf{IV}

Still, it does not seem quite right to treat Z-landers' discourse about weather just as we treated our own. A Z-lander semanticist would look at things differently. Having himself no concept of other places it might rain, he regards *rain* as a property of times, not a relation between times and places, as we do. He treats Z-landish discourse about the weather as homomorphic. What he provides as that which Z-landers believe and assert about the weather, the content of their discourse and thought, is something that to *u*s seems to be but a function, from places to propositions.

There is something right about our Z-lander's point of view that we have not yet captured, and something right about ours that we do not want to lose sight of. There is some distortion in treating the Z-landers' uses of *It is raining* just as we treat our own, as if there were a range of possibilities left open by their language that they simply fail to consider. Nevertheless, the possibilities we see, and they cannot yet express or think, are real.

Suppose we accept the Z-lander semanticist's opinion as to the objects of the Z-landers' attitudes—what they assert with a use of *It is raining* and what they believe when they hear such a statement from a reliable source—but stick to our view of what those objects are. Then we would say that the Z-landers assert and believe propositional functions, rather than propositions. What would be wrong with this?

Let us back up for a moment. Beliefs have a semantic and a motivational or causal aspect: they are true or false, and they guide our action in achieving our goals. The two aspects are connected. The action to which a belief leads us, given our goals, should promote those goals if it is true. Thus my belief that it is raining in Palo Alto leads me to go back to bed, given my goal of sleeping late unless I can play tennis without getting wet. And if the belief is true, going back to bed will promote this goal.

Similarly, the Z-landers' beliefs about the weather lead them to actions that make sense if it is raining in Z-land. So, it seems that those beliefs ought to be true, depending on how the weather is in Z-land. And so it seems that the objects of the belief should be about Z-land, so that they will be true or false depending on the weather there. This last step leads us to attribute content to their beliefs nonhomomorphically, for if we took the content to be a propositional function, rather than a proposition, it seems like the connection between the semantic and the motivational aspects of their beliefs would be mysterious.

But this last step is not really necessary. There is another way to make Z-land relevant to truth of the Z-landers' assertions and beliefs. We can give up our fifth assumption, that a statement made by the use of a sentence is true, just in case the proposition the statement expresses is true. For the Z-landers' discourse about weather, a statement is true if the propositional function it expresses is true relative to Z-land. Z-land comes in not as an unarticulated constituent each Z-landish weather statement is about, but a global factor that all Z-land discourse about the weather concerns.

The point is to reflect, in our semantics, the lesser burden that is put on the Z-landers' assertions and beliefs compared to ours because of their impoverished sources of information and their limited repertoire of weathersensitive actions. The only job of their assertions and beliefs concerning the weather is to deal with the nature of the weather in Z-land. Their assertions and beliefs are satisfactory, insofar as their "weather constituent"—rain, snow, sleet, etc.—matches the weather in Z-land, were our need also to register the place of the weather. By taking the propositional content of their beliefs to be propositional functions, rather than complete propositions, and taking them to be true or false relative to Z-land, we mark this difference.

Let us develop a little more vocabulary to mark this distinction. We shall reserve "about" for the relation between a statement and the constituents of its content, articulated and unarticulated. We shall say a belief or assertion *concerns* the objects that its truth is relative to. So the Z-landers' assertions and beliefs *concern* Z-land, but are not *about* Z-land.

V

As an alternative to this approach, we might consider taking Z-land to be a context-insensitive unarticulated constituent of Z-landish weather reports and beliefs. This would be plausible, insofar as it makes the relevance of Zland a fact about the whole linguistic system, rather than about individual assertions and beliefs. It does not seem quite right, however. Suppose the Z-landers become nomads, slowly migrating westward. If their uses of "It is raining" is keyed to their new surroundings, we would either have to say its meaning had changed, or that their reports were now false, whenever the weather in their new environs deviated from that in Z-land. Neither of these steps seems plausible. What we have contemplated is a change in their surroundings, not a change in the meanings of their sentences.

We can handle this under the approach of the last section, however. We can say that the place Z-landers' weather assertions and beliefs *concern* changes, as they move west. Or, if a schism develops, and different groups of Z-landers move off in different directions, severing connections with their old comrades, we can say that the different groups, though continuing to speak the same language, come to be concerned with different places. What is "built into" Z-landish, at the current stage of its development, is that those who speak it are concerned with the weather where they are, and their assertions and beliefs about the weather are true or false depending on the weather there.

\mathbf{VI}

Could we apply this analysis to my younger son's remark? That is, could we interpret it homomorphically, taking it to express a propositional function, and say that it is true, because it concerns Palo Alto? But this would not be an accurate remark about English. Weather discourse in English does not uniformly concern the place where the discussants are.

Still, there is a little of the Z-lander in the most well-traveled of us. Talking on the phone and reading the national weather reports are one thing, talking to someone in the same room about the weather is a bit different. Our reaction to the local statement "It is raining" is to grab an umbrella, or go back to bed. No articulation of the fact that the reporter's place and our place are the same is really necessary.

Something like the Z-landers' way of looking at things may be regarded as an aspect of our way of dealing with information about the weather, in circumstances in which the weather information we get is guaranteed either to be about or to concern our own location. And something like the semantics provided for the Z-landers' weather discourse is an aspect of the meaning of sentences like *It is raining* in our language.

To borrow a phrase from Wittgenstein, we might say that the sentence *It is raining* has a role in a number of different language games. In those parts of our life where there is an external guarantee that the weather information we receive be about and our actions will concern our own locale, there is no reason for our beliefs to play the internal coordinating role they need to at other times. When I look outside and see rain and grab an umbrella or go back to bed, a relatively true belief, concerning my present surroundings, will do as well as a more articulated one, about my present surroundings.

VII

There is a stronger point to be made, however. The weather in one's locale plays a special role in the life of humans. This is not necessarily the case for all agents that deal with information about the weather; the local weather of the National Weather Service Computer need have no special significance for it. But humans are affected in important ways by the weather around them, no matter where they happen to be. It is important that we be able to pick up information about the local weather perceptually, as we are able to do, and to act appropriately to it, by dressing warmly, taking an umbrella, or grabbing the sun-tan oil, as the case may be. These actions, which help us deal with the local weather, need to be under the control of beliefs that are formed through perception of the local weather. Efficiency suggests that there should be states of belief, typically caused by observations of the weather around one, and typically causing behavior appropriate to that weather. That is, there should be a belief state³ that intervenes between perception of rain and behavior appropriate to rain. But if beliefs involving this state are required to be *about* the place of the believer, then they must differ from person to person, depending on where they are, and even in a mobile individual, from time to time. Those in Phoenix should have their rain-behavior controlled by beliefs about Phoenix, those in Palo Alto should have their rain-behavior controlled by beliefs about Palo Alto, and so forth.

This could happen in two ways. One is that those belief states that directly control behavior for local weather merely *concern* local weather, rather than being about it. All believers who had just seen rain and were about to open their umbrellas would be reckoned as believing the same propositional function, but the truth conditions of their beliefs would differ with their

³The term "belief state" suggests to many the total doxastic state of the agent, but I do not use it in that way. Two agents, each of whom has just looked outdoors and seen rain, could be in the same belief state, in my sense, in virtue of the common aspect of their total states that would lead each of them to say, "It is raining," even though there is little else they would both be disposed to say.

location. The other would be to have these belief states correspond to a sentence like *It is raining here*. This sentence makes a statement about the local weather, no matter who says it and where; an analogous belief state would be about the local weather, no matter who was in it and where. On this view, the believers would be in the same state, but would not believe the same thing, because the state contains an "indexical" component.

We need both alternatives. An internal "indexical" component of weather beliefs, which makes them *about* the weather where in one's locale, is not necessary to understand beliefs with the causal role we have envisaged, intervening between local observations and actions appropriate to local conditions. It suffices that one's beliefs *concern* the local weather. Furthermore, using the indexical correctly is the same sort of ability as that grabbing an umbrella when one sees rain. "It is raining here" is an assertion appropriate when one sees rain, no matter where one is.

But a state corresponding to *It is raining here* also has an important role to play. For those who have access to information about weather in various places, and reason to communicate facts about their own local weather to others elsewhere that have such access. Such a state is best conceived as one that can be nomically tied to beliefs *concerning* the local weather and nonnomically tied, via beliefs about one's location, to beliefs *about* the local weather. I hear on the radio, "It is raining in Palo Alto." I believe that it is raining here, for I know that I am in Palo Alto. As a result, I believe that it is raining, a belief at a more primitive level that concerns Palo Alto. As a result, I get my umbrella.

The suggestion is, then, that our beliefs about the weather have a certain structure. At the bottom, there are what we might call "primary beliefs" about the weather, which are like the Z-landers' beliefs. These concern the local weather, and are true or false depending on it. They are typically caused by observations of local weather, and typically lead to action appropriate to local conditions. This is all our hypothetical Z-landers have, perhaps all that children have at certain stages of development, and often all that we need. Above these are indexical beliefs, which are *about* the place that the more primitive beliefs merely *concern*: It is raining here.

At the top are beliefs that correspond to more sophisticated forms of getting information about the weather: reading or listening to news reports, talking on the phone, and so forth. These beliefs are about various places, in virtue of relatively context-insensitive components of belief: it is raining in Palo Alto, it is raining in Murdock, and so forth. At the middle level are identificatory beliefs that allow information at the top level to be translated into action at the bottom level: this place is Palo Alto. VIII

This all suggests, I hope, a possible approach to the problem sketched at the beginning. What each of us gets from perception may be regarded as information concerning ourselves, to explain connections between perception and action. There is no need for a self-referring component of our belief, no need for an idea or representation of ourselves. When a ball comes at me, I duck; when a milk shake is put in front of me, I advance. The eyes that see and the torso or legs that move are parts of the same more or less integrated body. And this fact, external to the belief, supplies the needed coordination. The belief need only have the burden of registering differences in my environment, and not the burden of identifying the person about whose relation to the environment perception gives information with the person whose action it guides.

Lichtenberg's original remark was that one should say "There is thinking," just as one says "There is lightning" (von Wright 1972, 464). I have picked a somewhat less dramatic type of weather to serve as an analogy to self-knowledge, and developed it at somewhat greater length. Such analogies can carry us only so far, of course, but that is as far as I shall try to go in this paper.⁴

Postscript

This paper was presented to the Aristotelian Society in 1986 in a symposium with Simon Blackburn. In his contribution, "What About Me?" Blackburn is sympathetic with the framework of propositions and constituents that I use (Blackburn 1986). He agrees that speakers need have no representation

⁴Recognition of the need for a distinction between what I here call *concerning* and *being about*, and the necessity to investigate nonhomomorphic representation, were forced upon me by Joseph Almog and Robert Moore in the course of conversations about the motivation for propositions with truth-values relative to times, as found in David Kaplan's work on demonstratives. The present approach is the result of conversations with Jon Barwise, David Israel, Bob Moore, John Etchemendy, and others.

of a thing to talk about it, in my sense. He agrees that the most fundamental level of thought requires no idea or representation of ourselves. So far, so good.

But Blackburn keeps his enthusiasm under control:

- (1) He thinks that my sense of "about" is attenuated; with a stronger more intuitive notion, there are no convincing examples of a speaker talking about a thing with no representation of it.
- (2) He does not think that it is correct to take propositional functions as the objects of the Z-landers' thoughts.
- (3) He does not understand why we should say, about the fundamental level of thought that requires no idea or representation of ourselves, that it involves information *concerning ourselves*. I say we need to attribute the information to explain something, but he does not see what.
- (4) He does not think that I have provided any reason to be sympathetic to Wittgenstein and Lichtenberg; towards the end of his paper, he surveys some other reasons for sympathy that might be given, and finds them wanting.⁵

I will consider issues (1)–(3) in reverse order, but leave (4) for another occasion.

(3) Suppose that a ball comes at my head and I duck. Or suppose that I am hungry, see a milk shake and reach for it. In all likelihood, the perceptual and cognitive processes involved in these events will be integrated into my more or less adult-like system of self-consciousness and explicit selfrepresentations. I will remember that a ball came at my head, readily infer that at least once a ball has come at a philosopher's head, and so forth. Or I will remember that I am overweight and should not be drinking a milk

 $^{^5\}mathrm{I}$ do not claim that this is an exhaustive list of the reservations Blackburn presented.

shake, and then remember that I am overconscientious and should not be worrying about something as trivial as a milk shake, and so forth. These episodes would no doubt involve explicit self-representation and even selfrecrimination. But, I argue, simply to understand the fact that I duck when I see the ball, or the way hunger and perception of a milk shake leads me to move my arm, we need not postulate a self-representation. With this Blackburn agrees: "It is fact external to the belief—facts about the integration of our control systems—which as he puts it, supply the needed coordination. There need be no self awareness, and no self knowledge ..." (161). But, given this, he is somewhat mystified as to why I want to attribute the possession of information concerning myself to me: "Perry does however suggest that even at the fundamental level, what we get from perception may be regarded as information *concerning* ourselves, to explain the connections between perception and action. I am not clear how this works ... why we need a reference to myself in the identification of any belief state, even if the reference is external \dots " (161).

I do not claim that we need a reference to the believer in the identification of the belief state in question. When a ball approaches me, I can be in just the state that Blackburn or anyone else is, when a ball approaches them. We need a reference to the believer to specify the conditions under which the belief is true. Without this, we will not be able to understand the belief as part of a benevolent psychology, in the sense of Essay 9, and we will not be able to understand the logical connections between thought concerning an object and thought about an object.

This takes us to point (2) and the question of how it is best to describe episodes of language and thought whose truth conditions depend on objects of which they do not contain representations.

There are lots of cases of this. The general phenomenon is using an n-place predicate or concept to deal with an n+1-ary relation. Suppose I judge perceptually that two events happen simultaneously, and I am right.

The fact that makes me right is that those events were simultaneous relative to my certain frame of reference. "Is simultaneous with" is a 2-place predicate that we use to deal with a 3-ary relation, that of one event being simultaneous with another relative to a frame of reference. The frame of reference in question is not determined by a representation in my thought, but by the broader situation in which my judgment takes place.

A theorist who is analyzing the way an agent handles information and uses it to guide action may have to pay attention to factors the agent cognitive's system can safely ignore. The theorist's interest may be precisely how these factors can be ignored—how architectural or external constraints make internal representation unnecessary. It is the speed of light that allows us to get by with a 2-place concept of simultaneity. It is the shortness of our arms compared to the width of time-zones that allows us to ignore the latter when we read our watches. But where should the extra parameters come into the theorist's account?

My suggestion was that, in cases in which same unrepresented parameter is relevant to a whole mode of thinking or discourse, we should classify each specific belief or utterance with a propositional function. The truth-value would be that of the proposition obtained by applying the function to the value of the parameter fixed by facts about the whole system. Blackburn objects that this proposal leaves in the sphere of the Z-landers cognition "something which should not be—namely understanding of a general property (it raining at a place), which introduces exactly the possibilities which they cannot 'express or think'" (158).

But I do not think that having a cognitive relation to a family of properties requires one to understand that there are a range of things that can have or not have the properties. It may be that if one does not realize that, one is not properly appreciating the property-like nature of what one is cognizing. But that seems exactly the situation the Z-landers are in. If we think of propositions as 0-ary properties, we can say that they are in the same situation we are, most of us most of the time, with respect to simultaneity. We perceive and make judgments about a tertiary relation, while conceiving it to be a binary one; they perceive instances of and make judgments about unary properties (raining or not raining at particular times) while conceiving them to be 0-ary ones.

(1) Consider someone who is lost in Palo Alto. This does not prevent them from noticing that it is foggy, and they say "It is foggy here." Should we say that the content of their remark is the singular proposition individuated by Palo Alto and the property of being foggy? Blackburn thinks, correctly, that this is what I would say, and agrees that attributing this content might be reasonable for some purposes, such as understanding connection of utterances with truth and information. But, he says, "the notion of a proposition which is at this much distance from understanding ... is evidently not quite the notion—or at least not evidently quite the notion with which to think about understanding. And thought, surely, goes with understanding" (155).

The problem, according to Blackburn, is not the very notion of a singular proposition, of a proposition with constituents. It is that certain constraints on the use of this apparatus come with the goal of understanding thought. In particular, the "metaphor" of a constituent should be constrained by the principle:

You can identify a proposition only if you know which each of its constituents is.

Identifying the proposition one expresses is a condition for "fully understanding" one's own remarks. The person lost in Palo Alto fully understands what she says when she utters "It is foggy here." That means she can identify the proposition she expresses. By the principle, that means she knows which each of its constituents is. This means that, if that proposition has constituents, she is "knowingly denoting" them. But she is not knowingly denoting Palo Alto. Hence it is not a constituent of the proposition she expresses, given the notion of expressing a proposition that conforms to the principle, and is appropriate to the study of thought.

I believe the issue here is between a one-tiered and a two-tiered theory of the contents of thoughts. My approach is based on the extension of Kaplan's two-tiered theory of character and content to the realm of beliefs. It is in the interaction of the two levels that thought is to be understood. Singular propositions only indirectly characterize thoughts, in ways dependent on the circumstances of the thinker. Episodes of thought that are quite different in their nature and their cognitive and causal roles might all have the same singular proposition as their content, due to different circumstances. The thought naturally expressed with "It is foggy in Palo Alto" differs from one that is naturally expressed with "It is foggy here," even if the thinker of the latter is in Palo Alto. The present paper assumes this basic point of view, claims there is a further distinction to be drawn between the latter thought and one naturally expressed with "It is foggy," and seeks to understand that difference in the way the circumstances of the thought determine its interpretation.

As I understand Blackburn, he is approaching things a bit differently. He supposes that the the "metaphor" of constituents captures something about a certain kind of thinking, the kind of thinking that involves knowing denotation of certain objects, which are then (given the principle above) eligible for constituency in fully understood propositions. This is not the sort of thinking our person lost in foggy Palo Alto has. Rather than crediting them with the expression of a singular proposition they do not fully understand, we should admit that they fully understand what they say, but it is not such a proposition.

I do not want to deny that this is a reasonable approach, for it is surely one that has enabled philosophers such as Evans and Blackburn to say illuminating things and make useful distinctions. They see the objectindividuated proposition as the hallmark of a certain very special kind of thinking, whereas I see it as that which is common to quite different forms of thought, and allows us to understand their different functions and connections.

From my point of view, Blackburn's principle does not so much hew out a clear notion of full understanding, as to illuminate one of the consequences of admitting singular propositions. Individuals, locations, and times have a plethora of properties and stand in a multitude of relations; for different purposes, different types of properties and relations are relevant to identification. It seems to me that the right moral to draw from the principle is that the concept of identifying a proposition is susceptible to the same sorts of relativity as the concept of "knowing which thing." The concept of identifying a proposition has the delightful murkiness that is characteristic of good philosophical problems, but not of good philosophical tools.

Consider an admirer of Quine's, at a party where he knows Quine to be present. Does he know who Quine is? Yes, for he can say, "Quine is so and so," providing rich and interesting information. No, because he is standing next to Quine without realizing it. Does he know what proposition he utters when he says to Quine, pointing to Stuart Hampshire, "That man wrote *Word and Object.*" Yes, because he can identify it: "It is the proposition true if and only if *that man* wrote *Word and Object.*" No, because he can misidentify it—"It is true if and only if Quine wrote *Word and Object.*"—and it is only this misidentification of it that leads him to say it. Which answer takes precedence in determining whether the fellow was knowingly denoting and fully understanding or not?

In the paper, I suggest a metaphor for thinking about the ways we think about things, a sort of three-story house. At the top, we store information in ways that are relatively unaffected by context. There we would find thoughts naturally expressed as "It is foggy in Palo Alto" or "Quine wrote *Word and Object.*" At the bottom, tied to specific ways of picking up information about objects around us and specific ways of acting on them, are the thoughts naturally expressed as "It is foggy" and "That man looks distinguished." In the middle are orienting thoughts: "This city is Palo Alto," "That man is Quine." When we are correctly oriented, upper-story beliefs are altered based on what we find going on around us, and actions directed at things around us are guided by the information stored upstairs. When we are not oriented, the upward and downward flow of information is blocked. Central to this picture are the different ways we have of dealing with the same objective facts.

Singular propositions came to us from the theory of "direct reference." On Kaplan's theory, for example, the same singular proposition about Palo Alto is the content of "Palo Alto is foggy" and "This city is foggy," said by a person lost in Palo Alto. I take this to show that we ordinarily describe linguistic and cognitive activity in ways that focus on the things cognized and referred to, and not the ways we do so. This system works most smoothly when we are talking about well-oriented agents, for the lack of connection between "cognitive fixes" on the same object at different levels (as well as the possibility of multiple fixes at each level) is just what comes into play when people get disoriented and confused about where they are, who they are, and which things and individuals they find around them. A system of description that abstracts from the differences among them is not wellsuited to describe confused thought. Should we abandon this commonsense system of description for one that describes thoughts noncircumstantially? Or should we merely reserve attribution of singular propositions to welloriented agents? Or should we exploit them to help us compare, contrast, and understand the interrelations among the various ways we have of dealing with things? Blackburn's approach, as I understand it, is something like the second, and I admit is has a certain appeal. Mine is the last, and I admit that it is the product of confusion. But I hope that it is this only in the sense of being motivated by examples of confused people.