INDEXICAL THOUGHT

David Pitt
California State University, Los Angeles

Call a thought whose expression involves the utterance of an indexical an *indexical thought*. Thus, my thoughts that I’m annoyed, that now is not the right time, that this is not acceptable, are all indexical thoughts. Such thoughts present a *prima facie* problem for the thesis that thought contents are phenomenally individuated – i.e., that each distinct thought type has a proprietarily cognitive phenomenology such that its having that phenomenology makes it the thought that it is\(^1\) – given the assumption that phenomenology is intrinsically determined (i.e., that intrinsic duplicates are phenomenal duplicates). Let me introduce a notation – “thought quotes” – that will help make the presentation of the problem easier. Thought quotes – “’s (little thinking caps) – work like the quotes of direct quotation. If I want to report what you said the way you said it, I quote your very words: “She said ‘I’m annoyed’.” Similarly, if I want to report what you thought, the way you thought it, I thought-quote the very words you would use to express it: “He thought ‘This is not acceptable’.”\(^2\)

The problem is that there appear to be intuitively good reasons to think that the contents of indexical thoughts, like the contents of indexical utterances, are *referent-dependent* – that is, that they are determined not (or not only) by intrinsic properties of thoughts, but with respect to the referents of their constituent indexical concepts. Here are four such reasons.

1. If two indexical thoughts \(t\) and \(t'\) are identical except that one is about – in the sense of having a constituent indexical concept that refers to – an object \(o\), where the other is about (in

\(^1\) I’ve articulated and defended this view in Pitt 2004, 2009 and Forthcoming.

\(^2\) I introduce thought quotes rather than simply using the double quotes of direct quotation to avoid the temptation to construe thinking as inner speaking (a source of much mischief in philosophy of mind). Thought-quoted subsentential expressions refer to conceptual constituents of thoughts.
the same sense) a distinct object o’, then what one thinks in entertaining t is not the same as what one thinks in entertaining t’. My thought ^I’m annoyed^ and your thought ^I’m annoyed^ are different thoughts, because mine is about me and yours is about you. And because our ^I^ concepts have different referents, our thoughts can, moreover, have different truth values. My thought ^Now is not the right time^ thought at noon and my thought ^Now is not the right time^ thought at 1 pm are different thoughts, because the first is about (has a constituent concept referring to) noon and the second is about (ditto) 1 pm. Thus, indexical thought contents are, it would seem, individuated partly in terms of what their constituent indexical concepts refer to. But this is inconsistent with the thesis that thought contents are individuated by their intrinsic phenomenology, on which our thoughts ^I’m annoyed^ and my thoughts ^Now is not the right time^ would be the same thoughts, if, as I would argue, intrinsic phenomenal properties are not affected by extrinsic features of referents.

If we understand what is thought (like what is said) as the content of the thought (utterance), then we can say that the contents of indexical thoughts are individuated in terms of

3 Compare Kaplan on the contents of indexical utterances:

What is said in using a given indexical in different contexts may be different. Thus if I say, today

I was insulted yesterday

and you utter the same words tomorrow, what is said is different. If what we say differs in truth-value, that is enough to show that we say different things. [Kaplan 1989: 500; emphasis added.]

4 As a corollary, thoughts with referentially empty concepts would have no content at all. (See, e.g., Evans 1982 and McDowell 1984; see also Crane 2011 for a rejoinder.)

5 Against phenomenal externalists like Dretske, Lycan and Tye. (See my Forthcoming and “The Paraphenomenal Hypothesis” (ms.).)

6 See, e.g., Kaplan 1989, 503.
the referents of their constituent indexical concepts. One way of making this explicit is to say that the content of an indexical thought is referent-involving – that is, that it is a singular proposition, consisting at a minimum of an n-tuple of objects and an n-place property – and that indexical concepts are directly referential, in the sense that what they contribute to the propositions expressed by the thoughts they are constituents of is just their contextually determined referents.\(^7\)

2. Counterfactual evaluation of what one has actually indexically thought also seems to require that indexical thought content be referentially individuated. Suppose I think \(^I’m annoyed\(^. We can ask whether or not what I’ve thought in the actual world, the content of my actual thought, is true or not at some other world. But the counterfactual truth-value of what I actually thought is determined by whether or not \(I\) am annoyed in a counterfactual circumstance; and the only way to secure that I am the referent of \(^I\) in another possible world is to, so to speak, bring me along for the otherworldly ride. The descriptive content of \(^I\) can’t be relied on to pick out \(me\) when applied to another world. Indeed, it won’t pick out \(anyone\) without specification of a context; and the right context to specify is one in which I am the agent. Moreover, allowing modal operators to operate on the descriptive contents of indexical concepts results in absurdities such as that the thought \(^Possibly I don’t exist\(^ is necessarily false (since it’s necessarily false that the agent of a context does not exist in that context).\(^8\) So, again, the descriptive/phenomenal “character” of \(^I\) can’t be part of what I’ve thought when I think \(^I’m annoyed\(^ – it’s not a constituent of the content of my thought.

\(^7\) Another is to hold, with Evans (1982) and McDowell (1984), that contents are object-individuated senses, which are referent-dependent without being referent-involving.

\(^8\) The example is, of course, adapted from Kaplan 1989.
3. It has seemed to some philosophers (such as Evans and McDowell, op. cit.) that unless one knows what the referents of the indexical concepts in an indexical thought are (by, e.g., being acquainted with them), one doesn’t understand what has been thought – just as one wouldn’t understand what has been said by an utterance of an indexical sentence if one didn’t know what the referents of its constituent indexicals were. If I don’t know what you’re thinking about (what your indexical concept refers to) when you think \(^\text{That’s odd}\), then I won’t know what you’ve thought, just as I wouldn’t understand your utterance of ‘That’s odd’ without knowing what the referent of your token of ‘that’ is. And this would apply in my own case as well. I won’t understand what I’ve thought if I don’t have a referent in mind for \(^\text{that}\). But if we assume that understanding a thought is knowing what its content is, then it would appear that the contents of indexical thoughts are referent-dependent, and, thus, cannot be purely phenomenal.

4. The way we attribute propositional attitudes entails that the content of an indexical thought is individuated in terms of the referents of its constituent indexical concepts, and not its intrinsic phenomenal features. The way for a third party to report the thought I express in uttering “I’m in agony” is not to say “He’s thinking [that] I’m in agony,” but, rather, “He’s thinking [that] he [himself] is in agony.” To get the content of my thought right, any third-person ascription must replace ‘I’ with a term that, in the mouth of the ascriber, refers to what ‘I’ referred to in my mouth (viz., me). The descriptive content of the part of the third-person ascriber’s utterance that specifies the content of my thought must be different from that of mine in order for the ascription to be correct. To capture the content of my thought your term must agree in reference, not conceptual content, with mine. (Cf. Frege 1918.) Hence, indexical
thought contents are individuated referentially, and so not by any of their intrinsic properties.\(^9\)

My concern in this paper is to blunt these intuitions, and to defend a conception of indexical thought content that is entirely phenomenal and internalist. On this view, when you and I think \(^{\text{^I’m annoyed}}\), we’re thinking the same thought. The fact that my thought is about (refers to) me and yours is about (refers to) you, and that mine might thus be true while yours is false, doesn’t give them different contents and doesn’t make them different thoughts. Nor does modal evaluation of indexical thoughts require that their contents be individuated by the contextually determined referents of their constituent indexical concepts. One cannot determine the truth value of an indexical thought in the actual world without a specification of its context (a thinker, a time, a place, an addressee, etc.); and the same is true for evaluation of that thought in any other possible world. The fact that the relevant context is otherwordly does not entail that indexical contents are referent-dependent any more than contextual sensitivity in the actual world does. And there is no semantic necessity that the object I pick out in another world be the very object referred to in the actual world. Moreover, ignorance of the referent of an indexical concept does not prevent its containing indexical thought from being understood. Such knowledge enriches one’s overall cognitive take on things, but only through the introduction of further thoughts. Finally, the constraints our propositional-attitude ascribing practices are subject to are pragmatic rather than semantic. Our interest in what others are thinking is influenced by factors that do not affect the individuation of their contents.\(^{10}\)

\(^9\) Furthermore, one might argue, my introduction of “thought quotes” obscures this fact, by retreating to the equivalent of direct quotation. One should no more think that \(^{\text{^I’m in agony}}\) gives the content of my thought than that ‘I’m in agony’ gives the content of my utterance.

\(^{10}\) Needless to say, my arguments have direct application to the semantics of indexical expressions, as well as to the defense of any internalist view of mental content.
What is Thought

The intuition here is that what you think – the content of your thought – when you think ^I’m bored^ is different from what I think when I think ^I’m bored^, because we’re thinking about (referring to) different people, and what we think can differ in truth-value. Thus, the contents of our thoughts must be referent-dependent, and not individuated by their intrinsic features, phenomenal or otherwise.

A standard move for anyone who accepts these intuitions but nonetheless thinks there’s something content-like that our thoughts have in common is to make a distinction between so-called “narrow” content and “broad” (or “wide”) content. Narrow content is intrinsically individuated, and is common to our thoughts; broad content is extrinsically individuated, and is different for our thoughts. Accordingly, it might seem that the best way for an enthusiast of phenomenal intentionality to proceed here is to make a Kaplanesque character-content distinction for indexical thoughts, and identify cognitive phenomenology with (the cognitive equivalent of) character. One could then say that what our ^I’m bored^ thoughts have in common is their cognitive character, though not their contents, and that they are, in one sense, the same thoughts, but in another sense not the same thoughts.

Thoughts can be individuated in any number of ways, depending upon one’s purposes; and I suppose this way serves some purposes perfectly well. But I don’t think it’s the right way to individuate thoughts. On my view, it doesn’t capture what they are. Thoughts aren’t theoretical posits whose natures are determined by their containing theories, but objects of

---

11 You can individuate people by their distance from the northeast corner of 36th and Madison, and this might be useful for some purposes; but it doesn’t tell you anything about what people are.
intimate acquaintance in experience. They’re states of minds, and, as such, (on my view) are intrinsically constituted, and knowable from the first-person point of view. That a (mind- and language-independent) proposition could be referent-dependent or referent-involving is, perhaps, unproblematic. So if thoughts are representations of propositions, referential individuation of indexical thought contents need present no special issues. But if they and their contents are, as I maintain, cognitive phenomenal types (and their tokens are tokens of those types), then they can’t be individuated non-phenomenally. They can’t have non-phenomenal constituents or depend for their identity on non-phenomenal entities, and neither can their tokens. It couldn’t be literally true that one has a concrete (or abstract) object, such as an individual or a time (or a number or a universal), in mind, or that some extrinsic, non-phenomenal entity could affect the intrinsic nature of a mental state. If thought contents are phenomenal types, they can’t be referent-involving; and if phenomenal properties are intrinsically determined, they can’t be referent-dependent.

So I have a reason for questioning the motivations for making a narrow/broad or character/content distinction in the first place – i.e., for introducing a two-factor theory of content – of something like meaning (as opposed to reference). It seems to me that a theory that postulates only one kind of thought content, distinguishes it from reference, and identifies it with cognitive phenomenology – a theory that allows that distinct tokens of the same thought could have different referents, truth conditions and truth values – is all the theory we need.

---

12 See Pitt 2009 for a defense of the view that cognitive phenomenal types are identical to (as opposed to determinants of) thought contents. I assume throughout that thought types are individuated by their contents.

13 See note 18 for my response to Putnam-style Twin-Earth thought experiments. I present a sustained brief against Burge’s anti-individualist arguments in my (unpublished) paper “The Burgean Intuitions.”
In part, resistance to this sort of view is rooted in the intuition that, since content determines reference, if two concepts have different referents, they must have different contents. So, your token of ^I^ and my token of ^I^, having different referents, must have different contents. It can’t be that our thoughts have exactly the same contents but different referents, truth conditions and possible truth values.

But I don’t think this is correct. The argument is that, e.g., our ^I^ thoughts have different contents because their constituent ^I^ concepts have different referents. But it’s not true in general that thoughts with constituent concepts having different referents or extensions must have different contents, and be different thoughts. Consider the following examples.

In 1972 I think ^All dogs are quadrupeds^. In 2002 I think ^All dogs are quadrupeds^. The extension of ^dogs^ in 1972 is not the same as the extension of ^dogs^ in 2002. But have I thought different thoughts? Has my concept ^dog^ changed its content? Again, I have a strong intuition that I don’t, and it hasn’t. Do my thoughts have different truth conditions? Well, you might think they don’t, since they are, in both cases, just that the set of dogs is a subset of the set of quadrupedal things, and in both cases the conditions are fulfilled (so that difference of extension is not sufficient for difference of truth conditions). Though, on the other hand, if you think that the truth conditions of the 1972 thought ^All dogs are quadrupeds^ involve the set of the dogs that there are in 1972, and those of the 2002 thought the set of the

\[14\] I’m not thinking about the species dog, but, rather, its members – the dogs that there are, the individuals we refer to when we say, e.g., that too many dogs are victims of neglect and abuse. And I don’t think it’s plausible to suppose that the extension of ^dogs^ is all the dogs there are, were and will be as an explanation for our thinking the same thing. For, surely, the extensions of such concepts can change over time, as different individuals become their members. There are now dogs that did not exist 100 years ago. (And how would one then interpret a thought such as ^Dogs have recently begun talking^?)
dogs that there are in 2002, then the thoughts do have different truth conditions – though they are still, I maintain, tokens of the same thought type. In either case, however, the truth values of the thoughts could be different: dogs might have mutated into tripeds in the interim. And this ought to be enough, on the view I’m challenging, to conclude that they have different contents. But they don’t. General concepts don’t change their contents with changes in their extensions.

Here’s another example. In 1972 I think ^The president of the United States is a criminal^. In 2002 I think ^The president of the United States is a criminal^. Have I thought the same thing or not? It seems to me that I’ve thought precisely the same thing on both occasions, in spite of the fact that in 1972 I’m referring to a different criminal than the one I’m referring to in 2002, and, hence, that it’s possible for what I thought in 1972 to differ in truth value from what I thought in 2002. Difference in reference of definite-descriptive concepts, and the consequent difference of truth conditions and possible truth values of the thought tokens, doesn’t result in thought tokens with different contents either.

Now, it might be maintained that the contents of the above thoughts are insufficiently specified, because they contain a hidden indexical concept – e.g., ^current^ – and, hence, are in fact indexical thoughts. (In which case it would be question-begging to deny that their contents

---

15 I think the notion of truth conditions is in fact far too vague to be of any use in determining meaning or content. That a particular object has some property (or is a member of some set) places no constraint whatever on how the object or the property is thought of or described. That is, it doesn’t in itself determine any of the infinitely many ways of thinking of or describing the object or property that a thinker or describer might in fact deploy.

16 This intuition would not be defeated by a Russellian construal of definite descriptions, since it would still be the case that these thoughts would be about, in the sense of being made true by, different individuals (the values of the existentially quantified variables).

17 Compare John MacFarlane’s excellent paper “Non-Indexical Contextualism” (MacFarlane 2009). MacFarlane doesn’t accept the extension of his view to indexicals (personal communication).
are different.)

But the concept ^president^ is not the same as the concept ^current president^, and, hence, it’s possible to think that the president of the United States is a criminal without thinking that the current president of the United States is a criminal. I get to specify which thought I’m talking about; and the one I’m talking about doesn’t have a hidden indexical, and doesn’t change its content when thought at different times, about different presidents. (This sort of point would apply to any appeal to hidden indexical concepts.)

You might also think that the contents of these thoughts are insufficiently specified because the complete content of any thought includes an indication of the time at which it is thought, so that, e.g., my 1972 and 2002 dog thoughts in fact have different (non-indexical) contents, and that is what allows them to have different truth values.

From a first-person perspective, however, the view that thought contents always include time indications, and hence are true or false once and for all (a doctrine sometimes called “eternalism,” and contrasted with “temporalism”) is quite implausible. I might think ^All dogs are quadrupeds^ and have no idea what the current date is. And even if I know the date, I need not think of it whenever I think ^All dogs are quadrupeds^. Moreover, parity of reasoning would seem to require “ubiquitism” – the view that thought contents include place indications, and hence are true or false at every location – as well as “necessitarianism” – the view that thought contents include world indications, and hence are true or false at every possible world. But surely my thought ^The mayor is in his office^ (n.b.: not ^The local mayor is in his office^) could be true if I thought it in Los Angeles, though false if I had thought it (at the same time) in New York. And I could think it, yet have no idea where I am. And even if I do know
where I am, I needn’t think that I’m there when I think ^the mayor is in his office^.
Similarly, necessitarianism has the consequence that all of my thoughts are either necessarily true or necessarily false (it’s true (false) at every possible world that my thought is true (false) in the world in which I’m thinking it); and a parallel point holds about the possibility of thinking a thought without thinking of the possible world I’m in (or even having the concept of a possible world).

Analogous considerations hold for difference in reference or extension across worlds. We don’t suppose that general concepts change their meanings across worlds in which they have different extensions. My otherworldly twin may be thinking of other dogs, but he thinks exactly what I think when he thinks ^All dogs are quadrupeds^. Nor do we suppose that the content of definite-descriptive concepts changes with changes in their referents – e.g., ^the president of the United States in 2011^ doesn’t mean something different at worlds in which Barack Obama isn’t president in 2011; and ^the president of the United States in 2011 is African-American^ doesn’t mean something different at worlds at which it is false. Similar responses are available to the claim that such thoughts contain the implicit indexical concept ^actual^.

Though I’ve given reasons for thinking that the (controversial) thesis that reference, extension and truth are always relative to something is correct, in fact my argument doesn’t depend on it. The essential point is that such relativity doesn’t entail relativity of content: one may consistently endorse the claim that the extensions of general and definite-descriptive concepts typically vary with respect to places, times and worlds while denying that their contents do. Hence, some rationale is required for thinking that indexical concepts are exceptional in this regard. In the absence of such a rationale, they may be treated as differing only with respect to
the scope of their relativization. Whereas general and (indexical-free) definite-descriptive concepts have extensions relative to worlds, and times and places within worlds, indexical concepts have extensions relative to times, places, speakers, addressees, etc. within a world. (True demonstrative concepts such as ^this^ and ^that^ have (or so I claim) extensions relative to an even more deeply world-embedded index, viz., a perceptual-attentive state of an individual. There isn’t space to develop this claim here.) The fact that our indexical thoughts have constituent indexical concepts with different referents, and hence different truth conditions or truth values, does not entail that they have different contents.  

**Modality**

The standard modal motivation for a referent-dependent semantics of indexical expressions is that the actual referent of any indexical must be a constituent of what’s evaluated at other worlds in order to get the truth conditions of modal indexical sentences to come out right. 19 Analogous considerations would seem to apply to indexical thoughts. This intuition is widely accepted; but I think some reflection shows that it’s not inevitable. There are intuitively satisfying ways to understand the counterfactual evaluation of indexical thoughts (and sentences) without individuating them referentially.

Suppose you and I both think ^I’m itchy^.

---

18 There’s also a moral here for enthusiasts of Putnam-style thought experiments. Neither the principle that content determines reference, nor the principle that content (either linguistic or mental) supervenes on facts internal to the individual thinker, is threatened by the difference in extension of my and my twin’s terms or concepts. We can think and mean precisely the same thing in spite of the fact that we’re thinking or talking about (referring to) different substances.

19 From here on I’ll be focusing on the referent-involving version of referent-dependence (since, for one thing, it seems the more commonly accepted view). Adjustment of the points I make to address Evans-McDowell-style referent-dependence should be straightforward.
concept \(^I^\) has exactly the same content as mine, or anyone else’s. \(^I^\) is (like definite descriptions) referentially singular, but conceptually general: its tokens refer to individuals, but its content is such that different tokens can refer to numerically distinct but relevantly qualitatively identical individuals.\(^{20}\) What we have thought, the shared content of our token thoughts, is, on my view, the cognitive phenomenal type \(^I^\text{’}m itchy^\). And our thoughts – our individual, unshareable, unrepeateable, dated cognitive episodes – are tokens of that type. (They have their contents by being tokens of their contents.)

The truth-values of our thought tokens are determined by the states of the referents of their token \(^I^\) constituents; and the referents of our token \(^I^\text{’}s are determined by their contents – relative, of course, to some parameter (a world, time, person, place, etc.). Insofar, there’s no difference from truth-value determination for non-indexical thoughts: contents determine referents and extensions relative to some parameter, and the relations of referents and extensions determine truth-values. As noted above, where indexical contents differ is only in the scope of their relativization – as it were, the size of the context to which their reference is relativized. Concepts have referents or extensions relative to contexts, and contexts come in various sizes, from individual acts of attention to possible worlds to the space of all possible worlds (and perhaps beyond). General concepts have extensions at worlds and, typically, times within those worlds. Definite-descriptive and indexical concepts can have referents at proper parts of worlds – places (\(^\text{here}^\), \(^\text{the mayor}^\)), times (\(^\text{now}^\), \(^\text{the president}^\)), individuals (\(^I^, ^\text{you}^\)) and acts of attention (\(^\text{this}^\), \(^\text{that}^\)). And just as you and I can think the same non-indexical thought – i.e., token the same thought type – with different truth-values, we can

\(^{20}\) Concepts like \(^\text{dog}^\) are both referentially and conceptually general.
think the same indexical thoughts with different truth-values: my token of ^I’m itchy^ can be true while yours is false – since the referents of their constituent ^I^ concepts are different, and the states of those referents may be relevantly different.

The same parity holds for the evaluation of thoughts at other possible worlds. In order to evaluate a thought at a world, one must determine extensions for its constituent referential concepts. For some concepts, specification of a world may be enough. In the case of indexical concepts, specification of a world is normally not sufficient to determine referents, and so not sufficient to determine truth-value. One must also specify a relevant context within that world – a person, place, time, etc. But it doesn’t follow that indexical referents must be constituents of the contents of indexical thoughts evaluated at a world – whether it be this world or some other. And it doesn’t follow from it’s being the case that an individual must be specified in order to evaluate an indexical thought at a counterfactual circumstance that the referent of its actual token must be specified.

I can sensibly ask whether what I thought in a particular context in the actual world is true in some context, in the actual world or in some other world. If I think ^I’m itchy^, I can ask if what I thought is true of you: not (n.b.), is my token true of you (we may assume it couldn’t be); but, supposing you’re also thinking ^I’m itchy^, is your token of true of you. This is exactly parallel to the situation in which I, in Los Angeles, and you, in New York, think ^The mayor is in his office^. The thought type we’ve tokened contains the place- (and time-) sensitive concept ^the mayor^. Hence, since my token occurred in LA (in 2011), the default assumption is that it refers to Antonio Villaraigosa, while your token of the very same concept

21 It’s at best a default assumption. Imagine an aide to the mayor of Chicago visiting Los Angeles and wondering if the mayor is in his office. Which mayor he refers to is not
(at the same time) refers to Michael Bloomberg. And I can ask whether what I thought – the content I tokened – is true when tokened by you. And what’s true across contexts within a world is also true across worlds. I can sensibly ask with respect to some other world whether what I actually thought is true of me or you or someone else, or at some time or place, in that world. By which I would mean: if the thought type I tokened in some particular actual context were tokened in some context in some other world, would it be true in that context (of the chosen individual, time, place, etc.) in that world?

If I ask whether what I thought when I thought ^I’m itchy^ is true at possible world w, the answer depends upon which individual in w is assigned as the referent of ^I^. Though I’m semantically constrained to refer to myself when I token the concept ^I^, I’m not semantically constrained evaluate the content of my ^I^ thought at another possible world with respect to me. The token ^I^ in my token of ^I’m itchy^ must refer to me. But since its content is general (in the sense specified above), it can have tokens that don’t refer to me. Which context I determined by where he is. Contexts of reference can be chosen by thinkers.

And even if I were so constrained, it wouldn’t follow that the content of my ^I^ thought is referent-involving. ^I^ could be construed as having, for each individual, a de facto rigid descriptive content – though at the high cost of each of us having our own unshareable self-concept. Indeed, the same would seem to be the case if we individuate our ‘I’ concepts referentially, given that an individual’s ^I^ tokens are, necessarily, self-referential.

But it’s a mistake to hold that no two individuals can have the same self-concept. It may be true that each of us is presented to him or herself in consciousness in a way in which we are not, and could not be, presented to anyone else, and in which no one else is, or could be, presented to us. But this is not due to the nature of our self-concepts: you or anyone else can think about yourself in exactly the same way as I can think about myself. It simply doesn’t follow from the fact that I can’t think about you by tokening ^I^ that you can’t think about you by tokening the very same concept. Indeed, the way in which one is presented to oneself in consciousness – viz., self-consciousness – is a type as well: though it’s a relation one can stand in only to oneself, others can stand to themselves in precisely the same relation. (It’s like identity. There isn’t a distinct identity relation for every object.)
select at a given world will be determined by whom I’m interested in. If I want to know whether or not what I thought of me in the actual world is true of me at another possible world, then I must specify a context in that world of which I am the agent. I must find me there (or take me there) and examine my qualities there. It might be that when I or anyone else asks whether what I thought is true at world \( w \), we’re most often concerned with whether or not what I actually thought of myself (necessarily) is true of me at \( w \). But this is not semantically required, any more than it’s required of my thought ^The mayor is in his office^.

There may be a pragmatic presupposition – even a very strong one – that questions about the (actual and) counterfactual truth value of what I thought will be anchored to the referent of my actual tokening of ^the mayor^, but there’s no semantic necessity that it be. It’s not determined by the content of the concept. The fact that ^I^ tokens must refer to their actual tokeners is a red herring.\(^{23}\)

The evaluation of general thoughts at other worlds works the same way. Consider again ^All dogs are quadrupeds^. In order to determine its truth value at a world, we must determine the extensions of ^dogs^ and ^quadrupeds^ in that world. (We may need to consult specific contexts as well, since the extensions of these terms vary over time.) It’s true at the actual world iff the actual extension of ^dogs^ is a subset of the actual extension of ^quadrupeds^.

To determine the truth value of this thought in some other world, we must assign extensions to ^dogs^ and ^quadrupeds^ in that world. It’s perhaps the default assumption that we’re interested in whatever extensions those concepts happen to have in counterfactual worlds – because we’re typically interested in the modal properties of dogs qua species. But we could

\(^{23}\) As we learned from Kaplan, it’s essential to distinguish the logical status of indexical tokens from the logical status of their contents. I can’t falsely think ^^I^ refers to me^; but it’s not a necessary truth that ^I^ refers to me.
also inquire about the modal properties of some dogs \textit{in particular}. We might be interested in knowing whether \(^{Dogs\ are\ quadrupeds}\) is true in some other world where \(^{dogs}\) has the \textit{same} extension it has here – that is, whether the dogs we’ve picked out in the actual world have four legs in some other world. (It might be that we suspect there’s something special about these dogs: they’re necessarily immune to leg loss, though no other dogs are.) The default assumption for indexical concepts is just the reverse: counterfactual questions concern their actual token referents. But in both cases it’s possible – it’s coherent (even if strange or typically pointless) – to cancel the default assumption. It’s not ruled out semantically.

The pragmatic nature of the presupposition that, when one asks of an indexical thought (or utterance) whether it might have been true or false, one is asking about the \textit{actual} referents of tokens of its constituent concepts, is perhaps plainer in the case of indexical concepts whose token reference is not semantically constrained.

Suppose there are two tall males before us, and I say to you “He’s tall.” If I don’t indicate to you whom I’m referring to (say, by directing my gaze, or pointing), you won’t know of whom I’ve said it. And if I’d said it twice (referring the second time to the second individual, without indicating him to you), you’d know that I’d said the same thing twice – though not whether about the same individual, or one then the other. As we saw above, the fact that these sentence tokens can have different truth values, and that their constituent ‘he’s can have different referents, does not, \textit{per se}, give them different contents. (Indeed, I could utter the same sentence falsely, of one and the same individual, at different times. Should we conclude that what I’ve said has changed?) \textit{What you said is independent of whom you said it of.} If I then say “Possibly, he’s not tall” (or, more colloquially, “He might not have been tall”), there’s nothing in the
content of my utterance to determine which of the two guys I’m talking about. I might have
been referring to either (or even to neither, some additional individual having come to my
attention). And if I don’t direct your attention to one or the other, you won’t know to whom I
was referring, or whether or not what I said is true. I could have said the very same thing about
the other. Whom I’m referring to, in any case, including a counterfactual one, is determined by
whom I’m interested in. But this is a pragmatic matter; it’s not determined by the content of my
utterances. Your not knowing whom I’ve referred to by my utterance of ‘he’ does not entail that
you don’t know what I said. You just don’t know whom I’ve said it of, or whether or not it’s
ture (supposing you have the relevant information). It might be odd to go from thinking^He’s
tall^ of one person to thinking ^Possibly, he’s not tall^ of some other person – especially if the
latter were thought of someone not present. But it’s not semantically impossible.24

Indeed, it seems to me that it’s not conceptually impossible to think ^He’s tall^ or
^Possibly he’s not tall^ about no one in particular – i.e., just think it; just entertain the thought
(the way you’re doing right now). In fact, such an “empty” thought might even be construed as
having a determinate truth value. What one might be thinking in such a case – rather abstractly
(and probably idly) – is whether there is a possible world at which a male (at some time) isn’t
tall. This would be to address the purely general content of the thought as such. There may not
be much point to wondering this; and it’s certainly an unusual thing to think. But the fact that

24 Similar points can be made about names. Suppose I think, truly, ^Aristotle was a
shipping magnate^, and then immediately wonder ^Is it possible that Aristotle was a shipping
magnate?^ I might be wondering about Aristotle the shipping magnate (in which case the
answer is, trivially, yes); but I might also be wondering about Aristotle the philosopher, in which
case the answer isn’t trivial. What I’m wondering, in either case, is whether it’s possible that
someone who bears the name ‘Aristotle’ was a shipping magnate. That is, I’m wondering the
same thing in both cases – albeit about different individuals. (Analogous considerations apply to
names in speech.)
it’s possible shows that the contents of indexical concepts are as general as their non-indexical cousins.

Of course Kaplan objects to this sort of construal. He calls intensional operators on characters “monsters,” and accuses them of wreaking semantic and metaphysical havoc. If, for example, we suppose that ‘possibly’ operates on the character of an indexical sentence instead of its referent-involving content, we end up with such absurdities as that ‘Possibly I don’t exist’ (and, of course, ^Possibly I don’t exist^) is false, since, according to Kaplan, any context “appropriate” (to use his term) for the evaluation of an ‘I’ sentence will contain an agent, which is the referent of the occurrence of ‘I’ in that context, and, hence, ‘I exist’ will be true in every such context. Thus, ‘I exist’ will be true in every possible (appropriate) context, and ‘Possibly I don’t exist’ will be false. But, obviously, it’s possible for such contingent beings as us not to exist. (Kaplan 1989: 498)

Such problems can be avoided by making indexical contents their contextually determined referents and the content of my utterance of ‘I don’t exist’ the singular proposition consisting of me, the property of existence (supposing arguendo that existence is a property) and negation. We can then approach a world (a circumstance of evaluation) with this proposition, and ask whether or not it is true at that world. If I’m not to be found in that world (at a specified time), then the proposition, hence what I said, is true at that world (at that time).

But monsters are only a problem on the assumption that indexical contents are referent-involving. This is clear from the passage in “Demonstratives” (510) in which Kaplan responds to the question

Are there such operators as ‘In some contexts it is true that’, which when prefixed to a sentence yields a truth if and only if in some context the contained sentence (not the
content expressed by it) expresses a content that is true in the circumstances of that context?

as follows:

Let us try it:

(9) In some contexts it is true that I am not tired now.

for (9) to be true in the present context it suffices that some agent of some context not be tired at the time of that context. (9), so interpreted, has nothing to do with me or the present moment. But this violates Principle 2!

But Principle 2 is just the thesis that indexicals are directly referential. If we don’t accept it, then the fact that (9) evaluated with respect to other contexts might be true of someone else is not problematic. I might be most interested in what’s the case with me in some other context in evaluating (9), in which case I can pick contexts in which I am the agent. But – or so I’ve argued – the semantics of indexicals doesn’t force this.

Likewise, if we don’t suppose that the content of a tokening of ^I^ by me is me, but, rather, (something like) ^self^ – a reflexive self-concept – then ^Possibly, I don’t exist^ can come out true even if ^possibly^ is monstrous. Of course this concept can’t be tokened in any context lacking a thinker (no concept can). But tokening of concepts is like utterance of sentences, and we can follow Kaplan in maintaining that it’s not utterances of sentences containing indexicals that get evaluated at counterfactual contexts, but occurrences. If we took evaluation to concern utterances, then ‘Possibly I am not speaking to you now’ would be in the same sinking boat as ‘Possibly I don’t exist’. So the question becomes, are there true occurrences of ^I don’t exist^ (understood as having (something like) the content ^there is no self^)? Clearly there are, namely, occurrences evaluated at any context in a world without selves. If there’s no self for ^I^ to refer to, then ^I don’t exist^ is true. No token of ^I exist^
can be false – just as no token of ‘I am speaking to you now’ or "I am thinking now" can be false. But it doesn’t follow that its character can’t be false. It’s false at all contexts in worlds with no agents – just as ‘I’m speaking’ is false at all contexts in worlds with no speakers.

Again, what one is most likely interested in with respect to one’s thought "Possibly I don’t exist" is not worlds in which there is no one at all, but worlds in which one is oneself not to be found. But this can be accommodated. One can ask, “Is what I thought of me true of me?” – that is, is there a possible world in which the individual about whom I thought the thought, viz., me, does not exist? And the answer is (alas) yes. The fact that it might be extremely odd for someone to ask whom you are thinking about in when you wonder whether "Possibly I don’t exist" is true does not entail that it is semantically incoherent. If you’re interested in what’s true at some other world of the individual you actually referred to, you don’t have to put him in the content of the utterance in order to take him there. You can take him along as the referent of your actual indexical token.

I conclude that modal considerations don’t yield decisive reasons for thinking that the contents of indexicals are referent-dependent. One need suppose neither that indexical concepts are directly referential, in the sense that what they contribute to what is thought by their tokening (the content of their tokens) is just their contextually determined referents, nor that they’re rigidly referential, i.e., that an indexical concept token must refer to the same thing at every possible world.\(^{25}\) They’re as general in content and as variable in their reference as their non-rigid relatives.\(^{26}\) *This very* token indexical concept that I entertain (except for "I"), with its

\(^{25}\) With the exception of "I", of course – though as argued above this token referential rigidity doesn’t prevent "I" from having a constant content.

\(^{26}\) Again, parallel considerations apply to names (both in thinking and speaking), beginning with the observation that the referent of a name (as it might be, which causal chain is
actual content, can have different referents in different possible worlds/contexts. So modal considerations don’t show that indexical contents are referent-involving, and don’t militate against the thesis that (the contents of) indexical thoughts are intrinsically, phenomenally individuated.

The lesson here is that indexical contents are thin. But it’s their very thinness that makes them so useful – so portable (i.e., applicable to things about which one has minimal information). We should resist the temptation to fatten them up with referents in response to extra-semantic considerations having to do with the way we typically use them.

Understanding

The third motivation for supposing that the contents of indexical thoughts are referent-dependent is the claim that unless one knows the reference of an indexical concept one doesn’t understand the thought it’s a constituent of. If you or I think (or try to think), for example, "That’s a nice one" or "She’s a little runaway" without having any particular individual in mind as referents for "that" and "she", then neither of us will understand what either of us has thought. Moreover, if we tried to express our thoughts by uttering the relevant sentences relevant) is relative to context. Name-types are as referentially ambiguous (or indeterminate) as indexical types, as are their tokens. In the absence of a specified bearer of ‘John Smith’, "Possibly John Smith is a philosopher" is true iff there’s a possible world in which there’s a bearer of ‘John Smith’ who is a philosopher. (This is analogous to "Possibly he’s not tall" being true at a world iff there’s a male in that world who isn’t tall.) It’s true of some particular John Smith we might have in mind iff there’s a possible world in which he is a philosopher. But there are lots of John Smiths (all, pace Kripke, with the same name). I can think the same thing of each and every one of them by thinking "Possibly John Smith is a philosopher", and I can sensibly wonder whether what I’ve thought of one of them in this world is true of another one of them in this or some other world. If I describe a possible world using the name ‘John Smith’ as it is used in English, I might be referring to any of the many John Smiths. (I have a good deal more to say about names, and names in thought; but it will have to wait.)

27 Analogously, the same result ensues if I think (or try to think) "Glenn is an imbecile" but have no individual in mind as the referent of "Glenn".
without identifying referents for their constituent indexical terms, we would fail to understand what we had said, as would anyone else who could not identify such referents.

My response here is a quick one: understanding comes in degrees, and whereas there might not be much information associated with an indexical thought of whose indexical referents one is unapprised, or conveyed by its linguistic expression, it’s far from clear that nothing has been thought or understood or communicated. Say you hear an utterance of the sentence “She’s here!” and you have no idea who said it, where it was said, or whom it was said about. Do you nonetheless not know that someone has said that some female is located at some location? You’ll have a much better idea of the nature of the state of affairs that this sentence refers to if you know who she is and where here is. But it’s far from clear either that you don’t understand the utterance, or that if you repeated it yourself (perhaps replacing ‘here’ with ‘there’) you wouldn’t understand what you said, or, indeed, that you haven’t succeeded in saying anything.

Likewise in thought. I can very well think ^She’s a little runaway^ having no one in particular in mind as the referent of ^she^ and have thought something determinate – if only that some female is a small fugitive. And I can have absolutely no idea where I am (I was transported in a black hood) or what my surroundings are like (it’s pitch dark), and still think something determinate in thinking ^I really don’t like it here^. I know that ^here^ refers to the place where I am, even though that’s the only information I have. If someone turns the lights on, my understanding of ^here^ would increase, but only in the sense that further thoughts would be directed toward the place where I am, and would be known to be about the same place. My thought ^I really don’t like it here^, in the dark, with no knowledge of the referent of ^here^ beyond its being the place where I am, though surely paling in comparison with the same
thought when there’s a referent in view, is nonetheless a real thought. I do succeed in thinking something in such a case, and I do understand what I’m thinking, even if what I’m thinking is relatively jejune and uninformative. What I’m thinking in the perceptually impoverished environment doesn’t change when the lights go on.

Like I said, conceptual indexical contents are very thin. We don’t suppose that acquaintance with the extensions of definite-descriptive or general concepts, or knowledge of truth-values of the thoughts containing them is required for determinate thought or understanding. It’s only the relative informational paucity of indexical concepts that tempts us to treat them otherwise.

**Attitude Reports**

It appears that getting the contents of indexical thoughts right in third-person ascriptions depends upon identifying the *referents* of their constitutive indexical concepts, not their descriptive content. In order to report what you think when you think “I’m hungry” I must capture the *referent* of your tokening of “I”, not its descriptive content (its character). Thus, cognitive phenomenology – the mental analogue of character – is not part of what is thought, the content of the thought. The contents of (token) indexical concepts are referent-involving, and so can’t be phenomenally constituted. The way I’ve set up the issues begs the question against these facts in its use of thought-quotes, which refer to the *vehicle* of the thought rather than its content.

Both of these concerns can be quickly dismissed. As for the second, it’s not a cheat for me to use thought quotes. Unlike in the case of a sentence token and its content, on the conception of intentional content I’m defending there’s no difference between the tokening of a
thought and the tokening of its content. This is an important disanalogy with speech. The content of a sentence-token is not an intrinsic feature of it, whereas (or so I maintain) the content of a thought is. On my view, thoughts aren’t *representations of* contents; they’re *tokens of* contents.

As for the first, I think the argument is a *non-sequitur*. We could have a primary, even *overriding* interest in the referents of an individual’s concepts – which things in the world he is thinking about – without its being the case that content itself is referent-dependent. Interest in a thinker’s referents is perhaps to be expected, given the relation of propositional attitudes to *behavior*, and our interest – perhaps typically – in what someone is going to do, has done, or is doing, i.e., which objects in our shared environment (including, especially, ourselves) the individual’s actions will affect. If our main reason for wanting to know what someone is thinking is that we wish to know which objects he might be acting upon, then we may be less concerned with *how* he is thinking of them, i.e., with what his thought actually is. But our practical interests in the referents of an individual’s thoughts should not be the basis for an account of the nature of the thoughts themselves. The pragmatics of propositional-attitude ascriptions should not be allowed to dictate the metaphysics of propositional attitudes themselves. There are ascriber-independent facts about what individuates a thinker’s thoughts *per se* – independent as much from the interests of others as from the referents of their constituent concepts. (*These* facts are what are referred to using thought quotes.) We should not conflate interest in what someone is thinking *about* (in the sense of what the referents of his concepts are) with interest in *what* he is thinking. Indeed, even if our concern is primarily external, if our expectations, predictions or explanations are thwarted by an individual’s
behavior, we will recur to an interest in what he is thinking.

Two Objections

1. If we don’t appeal to the referents of indexical concepts in the individuation of indexical thoughts, then there will be cases in which we can’t make sense of thinkers agreeing in what they think. Suppose I think ^I’m sad and lonely^. If you want to agree with me, you’ll have to think the same thing I’m thinking. But in order to do this you’ll have to think (of me) ^He’s sad and lonely^. But the thought ^I’m sad and lonely^ and the thought ^He’s sad and lonely^ can only be the same thought if they are individuated referentially – i.e., as having the singular proposition featuring yours truly and the properties sadness and loneliness as constituents as their common content. Individuated internally, our thoughts are different; but if our thoughts are different, then we don’t agree.28

My reply to this objection is that it rests on a false assumption. Thinking the same thought is not the only way in which two thinkers can agree. They can, for example, think thoughts with different referring concepts that have the same referent. There’s a perfectly good sense in which you and I could agree on the mental status of George W. Bush, I by thinking ^The president of the United States is delusional^ and you by thinking ^The commander-in-chief of the armed forces is delusional^. (Whether or not we know that we agree depends on whether or not we know that the referents of our referring concepts are the same.) In the most basic case, agreement in thought involves merely attributing in thought the same properties to the same individuals. But this doesn’t require attributing in thought the same properties to the same individuals in the same way, and so doesn’t require that the thoughts we think be the same.

28 I owe this and the following objection to David Chalmers, in conversation.
So we don’t need recourse to extensional ways of individuating thought contents in order to accommodate agreement in thought. (This is obviously related to the points made above about the pragmatics of attitude ascription.)

2. Referential individuation of indexical thought contents would seem to be required in order to accommodate the possibility that a token of the thought ^This is this^ could be false, and a token of ^This is not this^ could be true. If the contents of all ^this^ tokens were the same, then it would seem that any thought of the form ^This is this^ would be necessarily true, and any thought of the form ^This is not this^ would be necessarily false. But there appears to be ample evidence that this is not the case. If I think of my left thumb that it’s my right thumb by thinking ^This [attending to my left thumb] is this [attending to my right thumb]^, what I’ve thought is false; and if I think of my left thumb that it’s not my right thumb by thinking ^This [attending to my left thumb] is not this [attending to my right thumb]^, what I’ve thought is true. So it can’t be that the content of the two tokens of the indexical concept ^this^ is the same. If, however, we suppose that the contents of indexical tokens are individuated referentially, then the fact that the referents in the first case are different and in the second case the same, the differences in truth value are smoothly accounted for.

However, the bulge, having been thus depressed, reappears in another part of the tire. For if we suppose that the contents of indexical concepts are referentially individuated, then tokens that have the same referents have the same contents, and tokens that have different referents have different contents. But then, if I were to think ^This [attending to my left thumb] is not this [attending, again (inadvertently) to my left thumb]^, I would be thinking something contradictory, and we’d have to explain why I might nonetheless be rational. Likewise if I were
to think ^This [attending to my right thumb] is this [attending (inadvertently) to my left thumb]^.

I think the thing to do here is to return to the thesis that indexical contents are non-referentially individuated, and to rethink the relation between content and reference. If we suppose that ^this^ has a constant content, and that, therefore, ^this is this^ is analytic, are we constrained to think that it, or any of its tokens, is necessarily true? I think not. Analyticity need not be construed as necessary truth in virtue of meaning. In fact, there are thoughts which, I would argue, are analytic and not true – for example, ^The present king of France is male^, and ^Round squares are round^. Analyticity may be construed as an entirely internal, structural relation among the component contents of thoughts, which in itself does not determine reference or truth value. The content of ^this^ is not such as to determine the same referent on every occasion of its use. Certainly the contextual features relevant to the determination of the referent of an indexical concept can change mid-thought – as in, for example, the (true) thought ^Now is not now^; indeed, given that thinking takes time, the features relevant to the interpretation of tokens of ^now^ are constantly changing. Even if one observes Kaplan’s distinction between an utterance and an occurrence, one would not be constrained to assign the same referent to, for example, both occurrences of ^this^ in an occurrence of ^This is this^.

Similar considerations apply to non-indexical singular concepts as well. Consider the thought ^The king is dead; long live the king^.

---

29 The problem is not dissolved by adopting a character-content like distinction for concepts; for then thoughts with contradictory characters could have true content, and thoughts with analytic characters could have false contents (e.g., the thoughts ^You are not you^ and ^You are you^) thought of two different individuals).
are different. The content of ^the king^ does not determine that the referents of all of its occurrences must be the same. (Indeed, I would argue, the only expressions whose contents determine the same referents for every occurrence are de facto rigid designators.) It’s simply left open whether or not a thought like ^The king is the king^ or ^This is this^ is true, in spite of the fact that both tokens of its constituent concepts have the same contents. Likewise, it is left open whether a thought like ^The king is not the king^ or ^This is not this^ is false. In both cases sameness of conceptual content doesn’t entail sameness of conceptual referent; hence, analyticity doesn’t entail truth, and contradictoriness doesn’t entail falsity.

And the same holds true for general thoughts such as ^Dogs are dogs^· If a thought is true iff the extension of the first occurrence of ^dogs^ is identical to the extension of the second, then, given that this might not be the case (some dog is born or dies in the middle of my thought), the thought might not be true. (And the same would be true on a conditional interpretation of ^Dogs are dogs^ – viz., if something is a dog then it is a dog – if this is taken to mean that if something is a member of the set of dogs, then it is a member of the set of dogs. The concept ^the set of dogs^ doesn’t necessarily determine the same extension at every occurrence.)

What of the thought ^I am here now^? Kaplan argued that the corresponding sentence is a truth of the logic of indexicals. Though the singular proposition it expresses is not a necessary truth, it’s necessarily the case that any occurrence of ‘I am here now’ is true. It has a necessary character, but not a necessary content. If, however, one identifies character and content, as the account I’m defending does, then would it not have to be that the content of my thought ^I am here now^ is necessarily true? But the intuition that it might not have been the case that I was in
that place at that time, which is clearly correct, seems to rule this out.

According to Kaplan, the character of ‘I’ is a function from a context to the agent of the context, the character of ‘here’ is a function from a context to the place of the context, and the character of ‘now’ is a function from a context to the time of a context. Contexts are represented by *indices*, which are n-tuples of (perhaps among other things), a world, an agent, a place and a time. He therefore builds it into his system that any occurrence of ‘I am here now’ will, necessarily, be true – since the agent, place and time of a given context are, necessarily, the agent place and time of that context.

This construction is based on the intuition that ‘I am here now’ is “deeply, and in some sense, ... universally, true. ... One need only understand the meaning of [it] to see that it cannot be uttered falsely.” (Kaplan 1989: 509). On the contrary, I would argue, intuitively, ‘I am here now’ *can* be uttered falsely – if, for example, one moves while one is speaking. Intuitively, the characters of ‘I’, ‘here’ and ‘now’ are such as to determine as referents, respectively, the utterer of ‘I’, the place at which ‘here’ is uttered, and the time at which ‘now’ is uttered. But since there is no guarantee that a person who utters ‘I am here now’ is at the time he utters ‘now’ in the place he was in when he uttered ‘here’, the logic of indexicals does not guarantee that any utterance of ‘I am here now’ is true.

Of course Kaplan makes a distinction between *utterance* and *occurrence*, and one may say that it is not utterances of ‘I am here now’ which cannot be false, but occurrences. But this just formalizes the intuition that one cannot utter ‘I am here now’ falsely, and builds it into the system.

While it does seem to be true is that the utterance *as a whole* will take place wherever it
does, whenever it does, I don’t think this can be attributed to the characters of the indexicals.

It’s a *metaphysical* fact that one is wherever one is when one is there; and this fact may be expressed by saying ‘I am here now’ – but only if one doesn’t move! (If one takes the place denoted by ‘here’ to be large enough, perhaps it would be (physically, not logically) impossible for one not to be at the place of utterance at the time of utterance.)

**Conclusion**

Due to space limitations, I’ve said very little about what I take the contents of indexical concepts to *be*. It’s possible they’re all primitive; but it’s also possible that some are analyzable in terms of others (e.g., ^here^ as ^this place^, ^now^ as ^the present time^). I’m inclined to think that they are, and I’m tempted to construe the content of ^I^ as (something like) *self*, and the contents of ^this^ and ^that^ as *the thing I’m attending to*. But development of these ideas will have to await another occasion. Here I’ll have content myself with having cleared the way (if indeed I have) for an internalist, phenomenally-based theory of indexical content. It entails a novel way of thinking about indexical thought and its relation to reference, modality and propositional attitude ascription. This is not the currently popular way of thinking about these issues. But I think it’s workable, and given that there are good reasons for accepting an internalist, phenomenally-based theory of intentional content, well worth developing.  

---

30 For helpful discussion and criticism of earlier versions, my thanks to Mark Balaguer, Dave Chalmers, Elijah Chudnoff, Terry Horgan, Amy Kind, Uriah Kriegel, Peter Lewis, Jesse Prinz, Charles Siewert, Aaron Zimmerman, participants in the 2008 workshop on Consciousness and Thought at the Dubrovnik Inter-University Center, and the 2008 meeting of the Phenomenal Intentionality Research Group at the University of Arizona, as well as audiences at presentations at the CUNY Graduate Center, the University of Nevada, Las Vegas and the University of Miami.
REFERENCES


