

# Whom Is the Problem of the Essential Indexical a Problem for?

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**Abstract.** Philosophers used to model belief as a relation between agents and propositions, which bear truth values depending on, and only on, the way the world is, until John Perry and David Lewis came up with cases of *essentially indexical belief*; that is, belief whose expression involves some indexical word, whose reference varies with the context. I shall argue that the problem of the essential indexical at best shows that belief should be tied somehow to what is subsequently acted upon, and must make room for other relations than those properly predicated. But it does not show that belief cannot be modeled as a binary relation between an agent and some suitable object (*pace* Perry), nor that this object cannot be a proposition (*pace* Lewis).

## 1 The Problem

It is *prima facie* plausible to have the account of the notion of belief rely on these assumptions:  $A_1$  Belief corresponds to a relation between an agent and an abstract object, called a *proposition*;  $A_2$  Propositions are true or false depending on, and only on, the way the actual world is. However, it has been argued, most persuasively by John Perry and David Lewis, that such an account could not handle beliefs that are essentially indexical; that is, beliefs that one naturally expresses with the help of indexical expressions, such as “this”, “today” or “I”, which are known for being able to stand for different things in different contexts, without turning ambiguous thereby.

What has been under attack is not the claim that some beliefs cannot be *expressed* without indexicals, but the claim that propositions provide an apparatus powerful enough to model belief, granted that belief helps in accounting for behavior. Here is a situation, borrowed from Perry [4], which illustrates the problem. Suppose that I went hiking, and had previously gathered from guides and other sources all possible information on the area where I went hiking. But I got lost. I know that to leave the wilderness I should take the Mt. Tallac trail, but I do not know whether it is the trail right in front of me, or some other one. Suddenly, I realize: “This is the Mt. Tallac trail! This is the trail I should take!” And so I move onto the trail. Now, it seems that I have gotten here a new piece of information, but of what sort can that information be? What distinguishes my beliefs before I figured out which trail I was looking at, from my beliefs afterwards?

If one could show that there can be no proposition that I only came to believe when I figured out which trail I should take, and none that I ceased to believe either, one would be right to reject  $A_1$  or  $A_2$  – assumptions that I shall call the *naive* doctrine about belief. The naive doctrine holds that in every situation of the sort, it is always possible to come up with some suitable proposition. One who wants to refute it, then, must be able to dismiss every proposition came up with as inadequate. What I shall do is offer, one after another, propositions that provide the ground for a potential difference in behavior, and consider, as I go along, possible reasons to doubt that the difference has been made, until I reach a proposition against which there is neither empirical nor theoretical evidence.

The aim of the present paper is to show that propositions are tools good enough to classify beliefs, whether or not their expression involves indexicals. I shall not suggest that these should be the only available tools, or even the best ones – all I wish is to show that the naive doctrine stands the challenge that has been taken to undermine it. Now clearly, that challenge must not hinge upon the question of how propositions happen to be conceived. Whatever bears a truth value relative to, and only to, the way the world is, ought to be able to count as a proposition. But for the sake of expedience, I shall avail myself of the distinction between *general* and *singular* propositions. If propositions are thought of as being structured, general ones will be structured only out of relations, which include properties, and of second-order relations between relations. On the opposite side, singular propositions will also have particulars among constituents. If propositions are rather thought of as corresponding to sets of possible worlds, general ones will be sets closed under isomorphism (that is to say, if some world belongs to the set, every other world isomorphic to that one will belong to the set too), while singular ones will distinguish among isomorphic worlds as well.<sup>1</sup> Now, if it turned out that, for every particular, there were a class of properties that together hold of, and only of, that particular, the distinction between general and singular propositions would simply be vacuous. Still, it may be helpful to maintain it, and to relate it to the distinction, found in the framework of predicate logic, between a closed sentence, and an open sentence endowed with an assignment of values to variables. Singular propositions, as against general ones, presuppose that a structure of interpretation has been previously settled upon.

The notion of singular proposition implies that it should be possible to refer to something *directly*, without having to individuate it as whatever uniquely falls under this-and-such description. It is an open issue what secures direct reference. There certainly ought to be some non-trivial relation to the object directly referred to. Russell used the relation of acquaintance to that effect: “I say that I am *acquainted* with an object when I have a direct cognitive relation to that object, that is when I am directly aware of the object itself.”<sup>2</sup> What matters to the present discussion is that singular propositions belong among the tools available to the naive doctrine. Essentially indexical belief, it has been argued, cannot be accounted for in any propositional framework, be it provided or not with singular propositions or any other

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<sup>1</sup> In philosophical milieus, it is widely agreed on that the apparatus of structured propositions is more fine-grained than that of sets of possible worlds, but this difference in grain is in fact irrelevant to the issues that I shall be dealing with.

<sup>2</sup> [9], p. 16.

device of direct reference. Perry wrote: “The problem is not solved merely by replacing or supplementing [the view that belief is a relation between subjects and propositions conceived as bearers of truth and falsity] with a notion of *de re* belief.”<sup>3</sup> For our purposes, it will be safe to identify belief *de dicto* with belief that only takes general propositions as arguments, and analogously belief *de re* with belief some of whose arguments are singular propositions.

Let me clarify what the issue is. Suppose that, under the same circumstances, one behaves differently only if one entertains different beliefs. Then how sophisticated a machinery do we need to articulate those differences in belief? There might be more differences than general propositions allow us to make. In the hiking situation e.g., my promptness to move onto a particular trail can hardly, if at all, be accounted for by *de dicto* beliefs. But are there more differences than singular propositions allow us to make? That is the question I shall focus on. So, the moment I could say “This is the trail I should take”, did I not acquire a *de re* belief about the Mt. Tallac trail, to the effect that I should take *it*? Well, philosophers seem to agree that I could have had that same belief all along, which leaves my change in behavior unexplained. Perry thus went on to suggest that there need be no change in *what* I believe, that is, in the conditions under which my beliefs are true. Instead, the difference in behavior would stem from the way in which I believe whatever it is that I believe. Thus when I think of the Mt. Tallac trail as of “this trail”, nothing changes within my beliefs, only do I come to entertain my *de re* belief about the Mt. Tallac trail, to the effect that I should take it, under a different guise, picturing the “res” that my belief is about, as the trail that I am looking at.

The view just sketched sees the structure of belief as essentially bipartite: *what* is believed is not the only thing that matters; it also matters *how* that is believed. In what follows, I shall argue that there are no compelling reasons to go bipartite. The strategy, in a nutshell, will be to incorporate everything imparted upon the guise under which I entertain some belief, into the belief itself. Then the problem of the essential indexical turns out not to be a problem for the naive doctrine, as long as it takes care of the fact that beliefs, in the sense of the conditions under which beliefs are true, had better be tied to the particulars acted upon as a result of those beliefs; and also, of the fact that some relations, like of demonstrating or of looking at when perceptual demonstratives are used, are not limited to their heuristic role, but matter to what is believed as well.

## 2 In Quest of the Best Analysis of “This”

Once again, here is the situation. I know that, to leave the wilderness, I should take the Mt. Tallac trail, but am unsure as to which trail it is. Then, say at 6 p.m. sharp, I am ready to say: “This is the Mt. Tallac trail! This is the trail I should take!” Now, what is the belief that I come to express? It had better be a belief I must have lacked, if my action of moving onto the trail is to be explained by a change in beliefs. Perhaps what I got out of the hiking guides were not beliefs *de re*, but *de dicto*, with respect to

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<sup>3</sup> [4], p. 34.

the Mt. Tallac. I would have merely believed that there existed some outward trail, named after Mt. Tallac, which I should have taken. Let that belief be glossed as:

$$\exists x (\delta x \ \& \ \text{I should take } x) \quad p_0$$

where  $\delta$  stands for some suitable description (e.g.  $x$  is an outward trail,  $x$ 's name is "Mt. Tallac",  $x$  is mentioned in guides, etc.) In contrast, identifying the Mt. Tallac trail deictically would earn me a de re belief to the effect that I should take *it*:

$$\text{I should take } x \ [\text{the Mt. Tallac trail} \rightarrow x] \quad p_1$$

The worry with  $p_1$  is that I could have believed that proposition all along – or so it seems. For suppose that I had taken the Mt. Tallac trail on my way to the wilderness. The trail must have become familiar enough to me to have de re beliefs about it, in particular  $p_1$ . But again, I could get lost, so  $p_1$  would not account for my moving onto the trail only once I could say "This is the trail I should take."<sup>4</sup>

### 2.1 "This" as "the Thing That I Am Looking at"

In hope of avoiding overstrong constraints on the cognitive relation borne to the constituents of the propositions believed, let us seek a better candidate than  $p_1$ . It is crucial that my change in behavior occurred precisely at the moment at which I started looking at a certain trail *as* the trail that I should take. So why not say that I simply came to have a de re belief about the Mt. Tallac trail, to the effect that it was not only the trail that I should take, but also the trail that I was looking at, glossed as:

$$\text{I should take } x \ \& \ \text{I look at } x \ \text{at } t \ [\text{the Mt. Tallac trail} \rightarrow x, \ 6 \ \text{p.m.} \rightarrow t] \quad p_2^-$$

The worry, quite as before, is that it seems that I could have believed  $p_2^-$  all along. The case is somewhat harder than the previous one, for it is not clear what secures direct reference to some time, especially when the time referred to belongs to the future or to the past. But still, let us suppose that I had taken the Mt. Tallac trail on my way in, and that at some time earlier than 6 p.m., say at 5.57 p.m. sharp, I came to believe that I would be looking at the Mt. Tallac trail at 6 p.m., of which time I was directly aware somehow – e.g. I might have thought of it as of the time which was going to occur in exactly 3 minutes. But meanwhile, I have lost track of time, and have found myself in the same situation as before, knowing that I should take the Mt. Tallac trail, but not knowing which trail it was. Then  $p_2^-$ , having already been among my beliefs, cannot account for my change in behavior.<sup>5</sup>

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<sup>4</sup> One could still deny, however, that I continued to have de re beliefs about the Mt. Tallac trail, such as  $p_1$ , after I got lost. One could thus hold that we must continuously bear a direct cognitive relation to every constituent of the singular propositions we believe. At some point, I would have ceased believing  $p_1$  to the detriment of a more general proposition, viz. that there existed some trail, named after Mt. Tallac, which I had taken on my way into the wilderness, and should take now to get out.

<sup>5</sup> Again, one could suggest that when I lost track of time, I also lost my grip on the relevant time, 6 p.m., losing thereby all my de re beliefs about it.

There is another worry with  $p_2$ , related to the contribution of the indexical “I”. Assume that when I say “This is the trail I should take”, I express a proposition that involves myself together with the Mt. Tallac trail, and is true depending on whether *I* should take *it*. Analyzing “this” further down, we come up with this alternative to  $p_2$ :

$$y \text{ should take } x \ \& \ y \text{ looks at } x \text{ at } t \qquad p_2$$

$$[\text{Isidora} \rightarrow y, \text{ the Mt. Tallac trail} \rightarrow x, 6 \text{ p.m.} \rightarrow t]$$

Now, suppose that you also came hiking with me, but you do not want to get out of the wilderness. You also come to believe  $p_2$ . For the sake of the argument, we may even go as far as to suppose that our beliefs and desires are exactly the same – where desires, just as beliefs, are seen as *propositional* attitudes, i.e. as relations between agents and propositions –. Then both you and I have a de re desire about me, to the effect that I leave the wilderness, and a de re desire about you, to the effect that you do not leave the wilderness. Yet, we behave differently, since only I move onto the trail. How come?

In relation to the same issue, Ruth Millikan wrote: “It is trivial that if I am to react in a special and different way to the knowledge that I, RM, am positioned *so* in the world, a way quite unlike how I would react knowing anyone else was positioned so in the world, then my inner term for RM must bear a very special and unique relation to my dispositions to act. *But what does that have to do with indexicality?* My inner name ‘RM’ obviously is not like other names in my mental vocabulary. It is a name that hooks up with my know-hows, with my abilities and dispositions to act, in a rather special way.”<sup>6</sup> What I find insightful in Millikan’s remark has nothing to do, in turn, with inner names. The point, as I would put it, is that if some agent believes a proposition with himself as a constituent, he may act otherwise than someone else who believes that same proposition, simply because his behavior is attuned to the presence of himself in the propositions he believes or desires, and not to the presence of other agents. Thus my dispositions to act are attuned to beliefs about myself, yours to beliefs about yourself, and so on. This “reflexive” feature may be taken care of through the way in which action relates to beliefs and desires, so there need be no inner names, or anything alike.

## 2.2 Believing about without Attending to

I have just been brought upon an issue which, if left unsettled, may later cast doubt on the viability of the naive doctrine. The issue has to do with the cognitive relation we must bear to the constituents of the propositions that we have attitudes toward. Russell wrote: “Every proposition which we can understand must be composed wholly of constituents with which we are acquainted.”<sup>7</sup> But if acquaintance implies “direct awareness”, then some may find it questionable that when I say to myself “This is the trail that I should take”, I need to be aware at all of the time, 6 p.m., at which the thought came down on me, and which has been made a constituent of  $p_2$ . The intuitions are that when, at 6 p.m., I come to think “This is the way I should go”, I am

<sup>6</sup> [3], p. 273.

<sup>7</sup> [9], p. 23.

not reflecting on the relevant time, nor do I need to be attending to that time, or even to conceptualize it. Moreover, my behavior will not be different if the thought occurs to me a minute earlier or later, a day before or after, and so on. Insofar as the time is a constituent of my thought, it is an “unarticulated constituent”, as Perry might have put it in [5]. The question, then, is whether grasping a proposition requires having articulated all of its constituents. If the answer were affirmative, something like Millikan’s inner names would be called for, and opposite intuitions would have to be explained away. But clearly, there is nothing inherent to the notion of singular proposition that should force an affirmative answer upon us. Regardless of what Russell himself had in mind, the cognitive relation that we need for direct reference should not require any attentive reflection on the things referred to. So we might simply say that to grasp some proposition, one must *potentially* be directly aware of all of its constituents, the idea being that one who is not attending to some constituent of his belief, could always do so if he wanted to.

### 2.3 “This” as “the Object of This (Mental) Event”

With  $p_2$ , the worry was that I could have believed that proposition before I decided to move onto the Mt. Tallac trail. So why not try to tie the proposition that I came to believe then not only to the moment at which I started looking at the Mt. Tallac trail as at the trail I should take, but also to my action of so looking at it? Events such as looking at something, reflecting on it, invoking it in memory, etc., may be plausibly considered as particulars also. Indeed, we refer to them, ascribe them properties, and relate them to other particulars. Given that events generate singular propositions just as other worldly things do, to explain my moving onto the trail, we simply need some suitable proposition among whose constituents is the event that corresponds to my looking at the Mt. Tallac trail, at 6 p.m., as at the trail I should take. Let  $\epsilon$  stand for that event. When I got ready to say “This is the trail I should take” and to move onto the trail, I came to have, inter alia, a de re belief about  $\epsilon$ , to the effect that the Mt. Tallac trail was the object of *it*. Then what I expressed may be glossed as:<sup>8</sup>

$$\begin{array}{l} y \text{ should take } x \ \& \ y \text{ looks at } x \text{ at } t \ \& \ x \text{ is the object of } z \qquad p_3 \\ [\text{Isidora} \rightarrow y, \text{ the Mt. Tallac trail} \rightarrow x, 6 \text{ p.m.} \rightarrow t, \epsilon \rightarrow z] \end{array}$$

There are two worries with  $p_3$  worth addressing. One comes from our layman’s intuitions on the matter, and holds that there is just no plausibility to the idea that if I say “This is the trail I should take”, I should ever express a belief about any mental event, in particular the one that I am undergoing. The other worry comes from the feeling that particulars corresponding to our mental events should, in principle, be possible to apprehend under different guises. Chances are then that the same agent could be endowed with the same de re beliefs about the same mental event, while still assuming different attitudes to it, therefore behaving differently.

The worry about the plausibility of using propositions such as  $p_3$  proves spurious in the light of the observation that to have a de re belief about something, one does not have to be attending to it. The naive doctrine cannot be accused of letting action hinge

<sup>8</sup> An option is to take “y undergoes  $z$  at  $t$ ” instead of “y looks at  $x$  at  $t$ .”

upon the ability to conceptualize thoughts and other mental events, for it does not. The issue, once again, is whether the naive doctrine has got tools powerful enough to account for different behaviors under the same circumstances. Its having recourse to the mental events that the agent happens to undergo cannot commit it to the idea that every action of ours involves company of fully articulated thoughts about those thoughts themselves.

Now, does the other worry go through? Is it possible, for instance, to so modify the hiking situation as to let me have believed  $p_3$  all along, even before I figured out, at 6 p.m., which the Mt. Tallac trail was, even before  $\epsilon$  came into existence? That seems hard. There is a more general question, though: is it possible to bear a direct cognitive relation to some mental event, of the sort required to have de re beliefs about it, without actually undergoing that mental event? In particular, can anyone else than the person undergoing  $\epsilon$ , grasp propositions about  $\epsilon$ , such as  $p_3$ ?

I shall not try to settle that question. What I shall do instead is argue that neither way will the naive doctrine come under threat. In other words, I shall argue to the conditional: even *if* it should turn out that one can directly refer to mental events that one does not undergo, there are ways for the naive doctrine to account for the change in behavior.

As with any conditional, let us suppose the antecedent, namely, that it is possible to refer to mental events directly, without undergoing them. To lend the idea a speck of plausibility, let us think of some case that makes this sort of direct reference possible. For instance, could you, my hiking companion, come to think, while I am undergoing  $\epsilon$ , “*this* mental event of hers must be such-and-such”? Would the object of your thought be a singular proposition about  $\epsilon$ , to the effect that *it* must be such-and-such? No, for it might have happened that I were not undergoing any mental event. The object of your thought would be at best a singular proposition about *me*, to the effect that the mental event I am undergoing, if any, must be such-and-such.

Since it is dubious that in everyday life we come to be directly aware of other mental events than the ones we ourselves undergo, it may be worthier to look at the case, say, of a neuroscientist who is working on mental processes. Suppose that a study is being carried out on several subjects, and that our neuroscientist is able to isolate particular mental events on the subjects’ brain scans. Wouldn’t he then be able to have de re beliefs about those mental events themselves, rather than de dicto ones? Whatever the answer to this question should be, let us assume, for the sake of the argument, that isolating a mental event on a brain scan secures direct reference to the event, and let us use this assumption to try to set out a pair of cases in which my beliefs, de dicto and de re, would be exactly the same, yet I would behave differently.

Engaging in something of a science-fiction, suppose that, unbeknownst to me, I am constantly brain-scanned, as part of a study carried out on several subjects by a team of neuroscientists. As before, I decide to go hiking, and I get lost. At 6 p.m. sharp, as I stare at the Mt. Tallac trail, it dawns down on me that *this* is the trail that I should take, and so I move onto the trail. At the same time,  $\epsilon$  appears on my brain scan, so that everyone looking at my brain scan may now refer to  $\epsilon$  directly, and form de re beliefs about  $\epsilon$ . In particular, let us assume that, knowing me wishful to leave the wilderness, all of our neuroscientists come to believe  $p_3$  itself:

y should take x & y looks at x at t & x is the object of z p<sub>3</sub>  
 [Isidora → y, the Mt. Tallac trail → x, 6 p.m. → t, ε → z]

Now, add to the situation that I also happen to be part of the team, and have access to the brain scans of some of the subjects. So let us consider two versions of this situation. On one version, the subject whose brain scan I have access to is not myself, whereas on the other, it is myself – although, of course, I am ignorant of that. Suppose furthermore that I had been instructed, were I to isolate on the brain scan some mental event having the Mt. Tallac trail for object, I should remain still until further instruction. So here is what we get: I go hiking, get lost, but end up figuring out which trail I should take. Now, on one of the two tokens, as usual, I move onto the trail. But on the other, ε appears on the brain scan, and no later than I have spotted it do I decide to remain still, as instructed.

Despite its fictional nature, the situation is challenging in that, if we give credit to the naive doctrine, it seems that we will end up endowing the agent (me) with exactly the same beliefs. But in the case in which I happen to have access to my own brain scan, one may be inclined to say that I came to believe p<sub>3</sub> “twice”, under different guises: once in a genuine token-reflexive manner, another time in a deictic manner, as every other neuroscientist. There is an intuitive difference between those manners of coming to believe p<sub>3</sub>, which might explain the difference in my behavior. But how can the naive doctrine make use of that difference, if it is to be a difference in *how* I believe things, and not in *what* I believe?

The bet of the naive doctrine was that whenever the same agent assumed different behaviors under the same circumstances, there would be some proposition that he or she believed in one case only. Here we have one and the same agent – me, and the circumstances seem to be the same. I do not behave in the same manner, yet there seems to be no proposition to distinguish between my beliefs. And if this is how things are, the naive doctrine has clearly lost its bet... But this is *not* how things are! For there are propositions to distinguish between my beliefs. In the case in which I do not move onto the trail, I have an additional de re belief about ε, to the effect that it is the mental event that I have isolated on the brain scan.<sup>9</sup>

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<sup>9</sup> There are two more worries with the view that uses propositions such as p<sub>3</sub>. One, concerning infinite regress, rests on the assumption that every occurrence of “this” must be further analyzed in terms of the complex “this mental event”. But clearly, nothing commits to this assumption, nor does anything prevent one from taking “this mental event” for a primitive term. The other worry, concerning circularity, rests on the assumption that it is possible to individuate beliefs by their contents; so, how could the content of some belief have the belief itself as a constituent, since one would then have to individuate the belief itself in order to individuate its content, yet this content is necessary to individuate the belief? Without rejecting the assumption, one may simply define contents of beliefs inductively. Let s stand for the belief that I would express by saying “This φs” in reference to some b. As any mental episode, s extends through time, say from t<sub>i</sub> to t<sub>j</sub>. Suppose that the interval [i, j] is well-ordered by its linear order, and let the content of s at t<sub>i</sub> be empty by definition, and for every k: i < k ≤ j, let the content of s at t<sub>k</sub> consist of b’s φing and of b’s being the most salient thing relative to the belief individuated by the sum of the contents of s at t<sub>i</sub>, for every l: i ≤ l < k. In spite of sketchiness, this hint at a definition reveals that the worry should not be paid great attention.



### 3 What Has Been Objected to the Naive Doctrine

Let us see what Perry and Lewis were upset for. Perry's conviction that the notion of *de re* belief cannot handle the problem of the essential indexical is partly due to focusing on only one way of associating *de re* beliefs with the "essentially indexical" ones. An essentially indexical belief, recall, is a belief one naturally expresses with the help of indexicals. Thus, in the atomic case, let  $P$  be some predicate and  $t$  some indexical term. Perry seemed to think in [4] that the only singular proposition some utterance of " $Pt$ " was likely to express, was:  $Px [b \rightarrow x]$ , with  $P$  the property denoted by " $P$ " (ignoring tense, for the sake of simplicity), and  $b$  the individual referred to with " $t$ " in the context of the utterance. For instance, if, in reference to the Mt. Tallac trail, I say "This is an outward trail", I shall be assigned only the *de re* belief that consists in the property of being an outward trail ascribed to the Mt. Tallac trail. It comes then as little surprise that such "atomic" *de re* beliefs are not powerful enough to account for behavior. As Stalnaker noted: "the lesson of the examples of essentially indexical belief – the examples that motivate Perry's account – is that indexicals are essential to the information itself and are not just part of the means used to represent it."<sup>10</sup> A sentence built out of some predicate and the demonstrative "this" need not be limited to ascribing only the predicated property to what the demonstrative stands for. There is no reason it should not encompass the property of being currently looked at, e.g. So to sum up, Perry would have been right to say that the problem of the essential indexical is not solved merely by supplementing *de dicto* beliefs with a certain fairly restricted class of *de re* beliefs. But this is clearly not to say that *no de re* belief may supply a solution to the problem.

To see what Lewis was upset for, we must imagine two "omniscient" hikers wishful to leave the wilderness. One hiker is looking at the Mt. Tallac trail, while the other happens to be looking at some *inward* trail instead. Now, for every proposition, the hikers know, *ex hypothesi*, whether it is true or not. In terms of possible worlds, they know exactly which world is theirs. But neither knows, claims Lewis, whether he should move or not onto the trail, because neither knows *which* of the two hikers he is, nor which trail he is looking at.

Now, unless it may be shown that mental events cannot be considered as a sort of particulars, this argument is flawed. Indeed, at least one of the assumptions that it rests on is false. If it is not the assumption that the hikers know all true propositions, i.e. know exactly which world is theirs, then it is the assumption that they are unsure as to what to do. Here is why. At some point, each hiker comes to wonder whether he should move onto the trail that he is looking at. Let  $\epsilon_0$  and  $\epsilon_1$  stand respectively for the mental events that consist of their looking at those trails. Then the proposition, call it  $q_0$ , about  $\epsilon_0$ , to the effect that its object is an outward trail, is true, while an analogous proposition about  $\epsilon_1$ , call it  $q_1$ , is false. The hikers, being omniscient, are deemed to know that  $q_0$  is true and  $q_1$  false. The problem, it is argued, is that neither knows *which* mental event,  $q_0$  or  $q_1$ , he himself has undergone.

Now, one cannot just stipulate, without further ado, that each hiker knows  $q_0$  to be true and  $q_1$  to be false, yet cannot identify the mental event that he has undergone as  $\epsilon_0$

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<sup>10</sup> [11], p.148.

or  $\varepsilon_1$  respectively. First of all, the hiker who undergoes  $\varepsilon_0$  bears a direct cognitive relation to  $\varepsilon_0$ , as does to  $\varepsilon_1$  the hiker who undergoes  $\varepsilon_1$ . So, to give the argument its chance, one must stipulate that the hikers did not come to know  $q_0$  to be true and  $q_1$  false via the most direct relation they respectively bear to  $\varepsilon_0$  and  $\varepsilon_1$ . But then, could they acquire that knowledge and yet be unable to reidentify  $\varepsilon_0$  and  $\varepsilon_1$ , as they occur in  $q_0$  and  $q_1$ , as the mental events they have undergone respectively? I do not see how they could. Take the hiker who has undergone  $\varepsilon_0$ . He is directly aware of it in virtue of having undergone it, and is again directly aware of it in virtue of whatever has earned him the knowledge of  $q_0$ 's truth. Is it then possible for him not to realize that these are one and the same mental event? No, if he is omniscient. For if he failed to realize that, there would be a proposition – an identity proposition, to wit – whose truth he would be ignorant of.

The fact is that each hiker must be directly aware of the mental event that he has undergone. Furthermore, the way in which the hiker who has undergone  $\varepsilon_0$  came to know  $q_0$  to be true must, modulo his omniscience, allow him to realize that  $q_0$  is about the mental event that he has undergone. *Idem* for the hiker who has undergone  $\varepsilon_1$  and the way in which he came to know  $q_1$  to be false. So it cannot be the case that the hikers are unsure as to what to do – unless, again, they are ignorant of  $q_0$ ,  $q_1$ , or even worse, of some identity proposition.

Lewis's argument proves flawed in the framework of possible worlds as well. Let  $w$  be the actual world (that is, actual to the hikers), and  $v$  a possible world exactly like  $w$ , except for the fact that  $\varepsilon_0$  and  $\varepsilon_1$  had switched places, so to say. According to Lewis, the hikers know exactly which world is theirs –  $w$ , to wit. But if they are still unsure whether to take the trails that they are looking at, then it cannot be the case that they know  $w$  to be the actual world. They can only know that either  $w$  or  $v$  is the actual world, but they cannot decide between the two. Only when they figure out which are the trails that they are looking at will they sway from the knowledge that the actual world is either  $w$  or  $v$ , to the knowledge that it is  $w$  and not  $v$ . The point, in one word, is that the hikers cannot distinguish  $w$  from  $v$ , unless they are already able to distinguish  $\varepsilon_0$  from  $\varepsilon_1$ .<sup>11</sup>

## 4 Conclusion

When Perry and Lewis questioned it, the naive doctrine was seen as the received view. Since then, the idea that propositions are not powerful enough to model belief and account for behavior, has become something of a received view itself. I have argued here that the problem of the essential indexical does not refute the naive doctrine. Every time we came upon an agent who, under the same circumstances,

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<sup>11</sup> Stalnaker made a similar point: "The case of the two gods (...) is also a case of ignorance of which of two indiscernible possible worlds is actual. (...) The gods are not really omniscient with respect to propositional knowledge, although they are omniscient with respect to purely qualitative features of the world." See [11], p.143. Note that  $w$  and  $v$  are perhaps qualitatively distinguishable – perhaps mental events that switch places, as  $\varepsilon_0$  and  $\varepsilon_1$  have done, must instill qualitative differences to the world. If true, this would just break the argument even further.

assumed different behaviors, we were able to distinguish his beliefs by means of some proposition.<sup>12</sup> Propositions about ordinary things, like you, me or the Mt. Tallac trail, most often do the trick. When they do not, others, whose truth depends on things such as mental events, do. Note that the naive doctrine does not have to put special constraints on the cognitive relation borne to mental events propositions about which are to grasped. The conditions for referring to things directly, remain the same regardless of whether the things referred to happen to be mental events, other sorts of events, or other sorts of particulars. Now, it is not excluded that the mental events that allow for direct reference should be *de facto* the same events as the ones that are undergone at the time of reference – that is an empirical question.

Two lessons have emerged from the problem of the essential indexical. One has to do with ensuring that a given agent will act upon a certain thing rather than another. For this, we need tools analogous to those supplied by the notion of *de re* belief. To be sure, what a belief is about, and what the believer will be led to act upon, does not need to play an explanatory role in the account of the nature of the resulting action. Views on which belief is modeled as a relation to things other than propositions, like the view that belief relates agents to properties, defended by Lewis, are perhaps more attractive on this point. But this tells us nothing against the naive doctrine. For some complex may well be the object of belief, even if some constituents of the complex do not affect behavior.

The other lesson has to do with the relationship between indexicals, which are linguistic devices for expressing beliefs, and the beliefs expressed. It has emerged that the role of an indexical often goes beyond the thing that the indexical stands for in a given context. Key roles may be conferred on the agent's relation to that thing, rather than to the thing itself. Now many, including Perry, Kaplan or Recanati, seem to think that such relations must fall outside what is properly believed, and only qualify the way in which that is believed.<sup>13</sup> But there is no compelling reason, I have argued, to think that those relations should not be part of what is believed.

The problem of the essential indexical is not an insuperable problem for the naive doctrine. True, it shows that heed should be paid to what is acted upon as a result of some belief. Singular propositions allow us to do that, as does any mechanism of direct reference. The problem also shows that care is to be taken not only of the relations that come with the predicate, but also of the relations that come with the indexicals with whose help some belief is expressed. To take care of them, we need nothing more than propositions *tout court*.<sup>14</sup>

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<sup>12</sup> To be sure, I did not show that for every single possible case of the sort, there existed some suitable proposition. However, the burden of the proof is now again on the opponent's side. Ideally, the naive doctrine should come up with a method of construing a suitable proposition upon the parameters of the case. Since problematic cases appear to arise only when something has been identified under different guises, the clue lies, I believe, in turning those guises into relations proper, which may then be incorporated into the proposition under construal.

<sup>13</sup> See [6], pp. 529-540 of [1], and Part I of [8], respectively. I ought to emphasize that Perry's current view (as in [7] e.g.) has changed in certain important aspects. I can only regret having been unable to take the relevant changes into account in the present paper.

<sup>14</sup> I am indebted to David Chalmers for helpful suggestions, as well as to John Perry, François Recanati, Philippe Schlenker and two anonymous reviewers for comments on an earlier draft.

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