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# STOIC DISAGREEMENT AND BELIEF RETENTION

BY

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**Abstract:** Propositions are generally thought to have a truth-value only relative to some parameter or sequence of parameters. Many apparently straightforward notions, like what it is to disagree or retain a belief, become harder to explain once propositional truth is thus relativized. An account of disagreement within a framework involving such 'stoic' propositions is here presented. Some resources developed in that account are then used to respond to the eternalist charge that temporalist propositions can't function as belief contents because they don't allow us to make adequate sense of what belief retention amounts to.

Although Jill disagrees with Jack if, in response to his utterance of the sentence 'Jupiter has three Galilean moons', she herself utters the negation of that sentence, she does not disagree with Jack if, in response to his utterance of 'I am Galileo', she utters the sentence 'I am not Galileo'. For although the sentence she uttered is the syntactic negation of the sentence Jack uttered, what she said in uttering 'I am not Galileo' is perfectly compatible with what Jack said in uttering 'I am Galileo'. An account of disagreement must evidently function at the level of what has been said, i.e. at level of the proposition expressed in uttering a sentence, and not at the level of the sentence uttered. That much is obvious. What turns out to be less obvious is just how an account at the level of propositions ought to look.

The natural thought is that disagreement is just a matter of accepting a proposition that another rejects. Natural though it is, this simple account faces difficulties. It is commonly thought that propositional truth is to be relativized to possible worlds, so that a given proposition might be true at one world but false at another. Things needn't end there, however. Kaplan (1989), for instance, relativizes propositional truth to times as well as

worlds, and contemplates the possibility of relativizing propositional truth to worlds, times and locations: what is expressed by an utterance of the sentence 'It is raining', he suggests, seems to be 'locationally as well as temporally and modally neutral' (Kaplan, 1989). If we accept this, then any two utterances of 'It is raining' express the same temporally, locationally and modally neutral proposition – a proposition that is true at some times, locations, and worlds but false at others. But if this is so, then if Jack in Seattle sincerely utters the sentence 'It's raining' and Jill in Chicago sincerely utters the sentence 'It's not raining', then they respectively accept and reject one and the same proposition; and yet they of course don't count as disagreeing, any more than Jill's utterance of 'I am not Galileo' counts as a correction of Jack's deluded utterance of 'I am Galileo'.

The simple account of disagreement thus fails once we allow such 'stoic propositions',<sup>1</sup> i.e. propositions the truth of which is somehow relativized.<sup>2</sup> And stoic proposals aren't hard to come by. I've already mentioned relativization to worlds, as well as relativization to times and locations; to this we could add relativization to standards of taste, judges, epistemic standards, and states of information, all of which have been proposed or at least entertained.<sup>3</sup> One might, of course, simply insist on the correctness of the simple account of disagreement, and reject stoic proposals on grounds of their incompatibility with that account.<sup>4</sup> The more charitable conclusion, though, is surely just that the friend of stoic propositions owes us an alternative account of disagreement. In what follows, I want to consider what account of disagreement a friend of stoic propositions might be able to offer. I will begin by considering the account proposed by MacFarlane (2007). Although I shall voice some dissatisfaction with how that account is phrased, the conceptual framework within which it is presented does seem to hold the key to how an account of disagreement applicable to stoic propositions ought to be formulated. I will therefore use some of the resources provided by that framework to develop an account which, I hope, will allow us to get a firmer handle on the nature of stoic disagreement.

Of course, stoic propositions don't only create trouble with regard to the notions of agreement and disagreement. Belief retention and changing one's mind are the intrapersonal analogues of the interpersonal relations of agreement and disagreement. The problems raised by the latter pair of concepts thus reemerge with the former, and a proponent of stoic propositions must accordingly address the same kinds of difficulties in the intrapersonal case as in the interpersonal one. I will therefore conclude by considering how the resources I develop in my account of agreement and disagreement could function as part of a stoic account of what it is to retain a belief. In particular, I'll try to say something about how such an account might let a temporalist respond to the eternalist charge that temporally neutral propositions can't function as belief contents because

they don't allow us to make adequate sense of what belief retention amounts to.

### 1. *Accuracy and disagreement*

For concreteness, I will throughout the following work with stoic propositions of the sort suggested by Kaplan's remark, that is, propositions whose truth is defined relative to a circumstance of evaluation (CE) consisting of a world, a time, and a location. Instead of saying that a proposition  $[\phi]$  is true at the CE  $\langle w, t, l \rangle$ , I will often just write  $[\phi]_{\langle w, t, l \rangle} = \text{True}$ . This notation is only intended as convenient shorthand, and is not meant to suggest that propositions must be identified with functions from CE's to truth values, only that they determine such functions. That is, if two propositions  $[\phi]$  and  $[\psi]$  are identical, then it follows that for all  $\langle w, t, l \rangle$ ,  $[\phi]_{\langle w, t, l \rangle} = [\psi]_{\langle w, t, l \rangle}$ , but we may leave it open that the converse does not hold.

In order to discuss issues related to stoic disagreement, it will be helpful to make use of two pieces of terminology introduced by MacFarlane (2007). First, we have the notion of the acceptance and rejection of a proposition, understood as follows:

ACCEPTANCE/REJECTION: to *accept* a proposition  $[\phi]$  is to assert or believe that proposition, and to *reject*  $[\phi]$  is to deny or disbelieve it.

So if, for example, Jack sincerely utters the sentence 'It is raining', he accepts the proposition [It's raining], and if Jill sincerely utters 'It's not raining' she rejects [It's raining]. Second, we will need the notion of the *accuracy* of an acceptance or rejection, defined as follows:

ACCURACY: an acceptance (rejection) of a proposition  $[\phi]$  is accurate just in case  $[\phi]$  true (false) at the CE relevant to the assessment of the acceptance (rejection) of  $[\phi]$ .

I will generally take it that the CE which is relevant to assessing an acceptance of a proposition is the CE that is determined by the context in which the acceptance occurs (or the 'context of acceptance' as I'll often call it). For example, if Jack accepts the propositions [It's raining] in Seattle at noon, the CE determined by the context in which his acceptance takes place consists of the actual world, the time 12pm, and the location Seattle. His acceptance of that proposition is then accurate iff [It's raining] is true at this CE, i.e. iff  $[\text{It's raining}]_{\langle w_{@}, 12\text{pm}, \text{Seattle} \rangle} = \text{True}$ . In what follows it will sometimes be useful to speak of the particular value had by the world, time and location parameters of the CE that is determined by the

context of acceptance. I will therefore avail myself of the notion of what an acceptance or rejection *concerns*, where this notion is to be understood in such a way that a particular acceptance or rejection concerns the items that are the values of the world, time and location parameters of the CE that the context of acceptance determines. Jack's acceptance of [It's raining] in Seattle at noon accordingly concerns the actual world, the time of 12pm (or more accurately: 12pm on such-and-such a date), and the city of Seattle.<sup>5</sup>

Given this terminology, we can characterize more precisely the failure of the simple account of disagreement mentioned earlier. That account, it will be recalled, had the following form: A's acceptance of a proposition [ $\phi$ ] and B's rejection of a proposition [ $\psi$ ] are in disagreement just in case:

SIMPLE DISAGREEMENT: the proposition [ $\phi$ ] A accepts is identical to the proposition [ $\psi$ ] B rejects.

Now suppose Jack stretches out his hand in Seattle, feels the raindrops, and sincerely utters 'It's raining', thereby accepting the (stoic) proposition [It's raining], while Jill in Chicago opens her window, feels the warmth of the sun on her face, and sincerely utters 'It's not raining', thereby rejecting the proposition [It's raining]. Since the proposition Jack accepts and the proposition Jill rejects are identical, the simple account classifies them as disagreeing. But clearly they aren't. After all, Jack's acceptance and Jill's rejection are both perfectly accurate given the distinct contexts in which Jack's acceptance and Jill's rejection respectively occur. And surely disagreement at the very least requires the absence of joint accuracy.

One can't circumvent this problem simply by requiring that it not be the case that the acceptance and rejection are both accurate. For consider a situation like the one just described, except that this time it's raining in both Chicago and Seattle: Jack's acceptance of [It's raining] is still accurate, but Jill's rejection of this proposition is now inaccurate. Despite the fact that we no longer have joint accuracy, however, this of course still isn't a case of disagreement. Something stronger than the mere absence of joint accuracy is evidently needed. We might therefore be inclined to adopt the following modified account, proposed by MacFarlane (2007): A's acceptance of a proposition [ $\phi$ ] and B's rejection of a proposition [ $\psi$ ] are in disagreement just in case:

CAN'T BOTH BE ACCURATE: (i) the proposition [ $\phi$ ] A accepts is identical to the proposition [ $\psi$ ] B rejects, and (ii) the acceptance and the rejection *cannot* both be accurate.<sup>6</sup>

On further reflection, however, it is somewhat hard to know precisely what to make of this proposal. For how are we to understand the modality

invoked in clause (b)? An acceptance or rejection occurs at a particular context, and will be accurate or inaccurate depending on how things are in that context. Given a particular acceptance/rejection pair, it will thus either be the case that both the acceptance and the rejection are accurate, or that that they are not both accurate. But what does it mean to say that they *can* or *cannot* both be accurate?

One might try to spell out the modality that's being invoked as follows: we require not just that one member of the particular acceptance/rejection pair under consideration be inaccurate, but that one of them be inaccurate no matter what the contexts involved are like, or more precisely, that there be no pair of contexts *c* and *c'* such that an acceptance of the proposition at issue in *c* and a rejection of it in *c'* are both accurate. But this would clearly rule out far too much. Almost any stoic proposition one cares to consider is such that there exists some context relative to which an acceptance of that proposition is accurate, and some context relative to which a rejection of it is accurate. We would thus be left with precious little in the way of stoic disagreement. Perhaps what is wanted is some more restricted version of the requirement. Not just any pair of contexts should be taken into consideration. Only contexts bearing a certain similarity relation to each other, or to the actual contexts of the acceptance and rejection in question, should count as relevant. But still, we haven't been given a clear indication of what this relation ought to look like.

I grant that MacFarlane's account has a certain intuitive pull. In many cases of stoic disagreement, one does want to say that there is a sense in which the parties to the disagreement can't both be accurate. But insofar as one wishes to elucidate the nature of stoic disagreement, one would, I think, like to be able to say a bit more about how exactly this characterization of the situation should be understood. One promising way to approach the question of what it is that makes for stoic disagreement is to consider a range of concrete examples, starting with simpler ones and moving to the more complex, and to then construct an account of stoic disagreement on the basis of reflection on those examples. It is to this task that I turn in the next section.

## 2. *Concern and disagreement*

Consider again the case of Jack in Seattle who accepts [It's raining] and Jill in Chicago who simultaneously rejects that same proposition. The account involving possible joint accuracy that we've been considering is motivated by the thought that one indication of the absence of disagreement in this case is that Jack's acceptance and Jill's rejection could, in some sense, both be accurate. Our complaint was that this sense of 'could' remained somewhat obscure. But of course in this case, the reason *why* Jack and Jill's

acceptance and rejection could both be accurate is perfectly clear: there is a difference in what Jack and Jill's acceptance and rejection respectively concern. To assess whether Jack's acceptance of [It's raining] is accurate, we must determine whether [It's raining]  $\langle w_{@}, 12\text{pm}, \text{Seattle} \rangle = \text{True}$ , whereas to assess whether Jill's rejection of [It's raining] is accurate, we must determine whether [It's raining]  $\langle w_{@}, 12\text{pm}, \text{Chicago} \rangle = \text{False}$ . Thus, although Jack and Jill's acceptance and rejection concern the same world and time, they concern *different* locations, with the consequence that if it's raining at noon in Seattle but not in Chicago, then their respective acceptance and rejection of [It's raining] are both accurate.

This suggests that an account of stoic disagreement ought to take the character of the CE that is relevant to the accuracy of the acceptance and rejection directly into consideration. Most straightforwardly, we could try the following: A's acceptance of a proposition  $[\phi]$  and B's rejection of a proposition  $[\psi]$  are in disagreement just in case:

SAME CONCERN: (a) the proposition  $[\phi]$  A accepts is identical to the proposition  $[\psi]$  B rejects, and (b) the acceptance and rejection concern the same things.

(The things an acceptance (rejection) concerns are, again, simply the values of the parameters of the CE that is determined by the context of acceptance (rejection).) SAME CONCERN yields the correct result in the case involving Jack's acceptance and Jill's rejection of the proposition [It's raining]: although condition (a) is satisfied, since the proposition Jack accepts is identical to the one Jill rejects, condition (b) is *not* satisfied, since Jack's acceptance concerns a different location than Jill's rejection.

This straightforward implementation of the idea runs into trouble, however. Suppose we have a location shifting operator 'Somewhere', governed by the following clause:

[Somewhere:  $\phi$ ]  $\langle w, t, l \rangle = \text{True}$  iff  $\exists l' ([\phi] \langle w, t, l' \rangle = \text{True})$ .

And now suppose Jack in Seattle accepts the proposition [Somewhere: It's raining] while Jill in Chicago rejects it. Clearly, the two are disagreeing – Jack holds that it's raining somewhere, whereas Jill rejects that claim. SAME CONCERN, however, doesn't yield this result: although the proposition Jack accepts is identical to the one Jill rejects, condition (b) is not satisfied, since Jack's acceptance and Jill's rejection still concern different locations, given that the CEs respectively determined by the contexts of their acceptance and rejection differ at the location parameter.

An obvious modification suggests itself. An acceptance of [It's raining] in Seattle is accurate if it's raining *in Seattle* (in the world and at the time of the acceptance), whereas an acceptance of [Somewhere: It's raining] in

Seattle is accurate if it's raining *anywhere* (in the world and at the time of the acceptance). We should, therefore, only require that an acceptance and rejection concern the same location if the location of the acceptance and rejection matters to their accuracy. To be a bit more precise, given a CE  $\langle w, t, l \rangle$ , call CE' a *l*-variant of CE iff CE' differs from CE at most in its value at the *l*-parameter. (Similarly for *w*- and *t*-variants.) And now call a proposition  $[\phi]$  *insensitive* to the *l* parameters (or *l*-insensitive) iff for any given CE,  $[\phi]$  has the same value at all *l*-variants of CE, and *sensitive* to the *l* parameter (or *l*-sensitive) if it is not *l*-insensitive. (Similarly for *w*- and *t*-sensitivity.) The proposition [It's raining] is thus sensitive to the *l* parameter (as well as to the *w* and *t* parameters), whereas [Somewhere: It's raining] is insensitive to the *l* parameter (though it is sensitive to the other parameters). The proposal, then, is that an acceptance and rejection need only e.g. concern the same location in order to constitute disagreement if the proposition accepted and rejected is *l*-sensitive. In other words: A's acceptance of a proposition  $[\phi]$  and B's rejection of a proposition  $[\psi]$  are in disagreement just in case:

SAME SENSITIVE VALUES: (a) the proposition  $[\phi]$  A accepts is identical to the proposition  $[\psi]$  B rejects, and (b) the CEs determined by the contexts of the acceptance and rejection are identical in their values at all parameters to which the proposition is sensitive.

This account yields the correct results in our second scenario. If Jack in Seattle accepts the proposition [Somewhere: It's raining] while Jill in Chicago rejects it, then they are disagreeing because (a) the proposition they respectively accept and reject is the same, and (b) the CEs determined by the contexts of acceptance and rejection differ only at the parameter to which the proposition is insensitive, viz. the location parameter.

SAME SENSITIVE VALUES does, I think, capture the core of what is required for stoic disagreement in cases that involve a single proposition. The trouble is that there are cases which fail to involve a single proposition – identity of accepted and rejected propositions not only fails to be sufficient for stoic disagreement, it also doesn't seem to be necessary.<sup>7</sup> Consider, for example, an operator like the following:

$$[\text{In } l': \phi] \langle w, t, l \rangle = \text{True iff } [\phi] \langle w, t, l' \rangle = \text{True.}$$

Now suppose Jack in Seattle accepts [It's raining] while Jill in Chicago simultaneously rejects [In Seattle: it's raining]. We here clearly have a case of disagreement, and this despite the fact that the accepted and rejected propositions are distinct. Such cases also point towards an inadequacy in clause (b) of SAME SENSITIVE VALUES. Consider the following analogue of Kaplan's (1989) 'G' operator:

$[N \text{ years ago: } \phi] \langle w, t, l \rangle = \text{True iff } [\phi] \langle w, t-n \text{ yrs}, l \rangle = \text{True.}$

Now suppose that in 1998, Jack accepts [30 years ago: Paris is in turmoil], while in 2008, Jill rejects [40 years ago: Paris is in turmoil]. The single proposition cases considered earlier tended to suggest that the CEs relevant to a given acceptance and rejection need to have identical values at any parameters to which the proposition involved is sensitive in order for there to be disagreement. But as the present cases show, once we are dealing with situations in which the accepted and rejected propositions aren't identical, that kind of requirement is no longer legitimate: provided the propositions involved are appropriately coordinated, we may have disagreement involving e.g. time sensitive propositions despite a difference in the value had by the time parameter of the CEs determined by the context of acceptance and rejection.

How can we accommodate such cases? Clearly, we cannot get at the kind of coordination between accepted and rejected propositions that we find in these cases by looking only at entailment relations between those propositions themselves: there are CE's relative to which [It's raining] is true but [In Seattle: it's raining] is false, and vice versa, and likewise for [30 years ago: Paris is in turmoil] and [40 years ago: Paris is in turmoil], so in neither case does either proposition entail the other. What is distinctive of stoic disagreement is precisely the fact that it is not just the propositions that are accepted and rejected, but also the CEs determined by the context of acceptance and the context of rejection, that are relevant to disagreement. The question is how the values of these CEs need to align in a case that involves distinct propositions in order for that case to constitute an instance of disagreement.

We can get some traction on this question by directly considering what we might call the *accuracy condition* of the acceptance and the *inaccuracy condition* of the rejection. If Jack is in Seattle in 1998 and accepts the proposition [30 years ago: Paris is in turmoil], the accuracy condition of his acceptance is that [30 years ago: Paris is in turmoil]  $\langle w_{@}, 1998, \text{Seattle} \rangle = \text{True}$ ; and if Jill is in Chicago in 2008 and rejects the proposition [40 years ago: Paris is in turmoil], the inaccuracy condition of her rejection is that [40 years ago: Paris is in turmoil]  $\langle w_{@}, 2008, \text{Chicago} \rangle = \text{True}$ . The two disagree because the propositions and the CEs that are involved are coordinated in such a fashion that the fulfillment of the accuracy condition of Jack's acceptance guarantees the fulfillment of the inaccuracy condition of Jill's rejection, and vice versa. In this case, as in the case involving Jack's acceptance (in Seattle) of [It's raining] and Jill's simultaneous rejection of [In Seattle: it's raining], the guarantee is two-way. Once we've opened the door to disagreement involving distinct propositions, however, a requirement to the effect that the accuracy and inaccuracy conditions mutually guarantee each other's fulfillment seems too strong. It should suffice if one



of them guarantees the fulfillment of the other. If, for instance, Jack in Chicago accepts [It's raining] while Jill in Seattle at the same time rejects [Somewhere: it's raining], the fulfillment of the accuracy condition of Jack's acceptance guarantees the fulfillment of the inaccuracy condition of Jill's rejection, but not the other way around, and yet we still have a case of disagreement. The account that suggests itself is then the following: A's acceptance of a proposition  $[\varphi]$  and B's rejection of a possibly distinct proposition  $[\psi]$  are in disagreement just in case:

IN/ACCURACY CONDITIONS: the fulfillment of the accuracy condition of A's acceptance guarantees the fulfillment of the inaccuracy condition of B's rejection, or vice versa

where the accuracy condition of A's acceptance of  $[\varphi]$  is that  $[\varphi] \langle w_c, t_c, l_c \rangle = \text{True}$  ( $w_c, t_c$ , and  $l_c$  being the world, time and location determined by the context of A's acceptance), and the inaccuracy condition of B's rejection of  $[\psi]$  is that  $[\psi] \langle w_c, t_c, l_c \rangle = \text{True}$  ( $w_c, t_c$ , and  $l_c$  being the world, time and location determined by the context of B's rejection).

### 3. *Taking stock*

We began the last section by reorienting our search for an account of stoic disagreement away from CAN'T BOTH BE ACCURATE and towards the question of what an acceptance or rejection concerns. The most straightforward implementation of that basic idea, SAME CONCERN, faced difficulties with cases involving propositions that are insensitive to a particular parameter, which led us to SAME SENSITIVE VALUES. The latter account fares well when the accepted and rejected propositions are identical. As we've seen, however, the requirement that the accepted and rejected propositions be identical is ultimately unwarranted. So as to accommodate cases involving distinct propositions, we therefore went with IN/ACCURACY CONDITIONS. The account we've settled on does, I believe, bring out much of what is distinctive about disagreement involving stoic propositions. There are, however, two points that deserve further discussion.

First, there is a question about how we ought to regard the relationship between the present proposal and MacFarlane's (2007) CAN'T BOTH BE ACCURATE. In one sense, the two are certainly different: MacFarlane's account requires that the accepted and rejected propositions be identical, whereas we have tried to make room for disagreement in cases where the accepted and rejected propositions are distinct. (Although, as I've mentioned, MacFarlane does also point out that the identity requirement ultimately needs to be dispensed with.) There is, however, another sense in

which the two accounts are quite closely related. The present proposal requires that in order for a given case to constitute an instance of disagreement, the fulfillment of the accuracy condition of the acceptance should *guarantee* the fulfillment of the inaccuracy condition of the relevant rejection (or vice versa). One could also put this by saying that the propositions and CEs involved should be related in such a way that the inaccuracy condition of the rejection *must* be fulfilled assuming that the accuracy condition of the acceptance is fulfilled (or vice versa). Both accounts thus rest on a, broadly speaking, modal notion in order to explain stoic disagreement. Indeed the present proposal could be seen as one way of spelling out what MacFarlane's CAN'T BOTH BE ACCURATE is intended to get at.

This also raises a certain worry, however. For although our appeal to accuracy and inaccuracy conditions does, I hope, serve to further clarify what is involved in stoic disagreement, one might still worry about the nature of the guarantee that is being invoked. What *exactly* – one might ask – is required of the propositions and CEs involved for it to be the case that the fulfillment of the accuracy condition of the acceptance 'guarantees' the fulfillment of the inaccuracy condition of the rejection (or vice versa)? It would be nice to be able to say something in the way of further explanation here, but I believe that the friend of stoic propositions may ultimately have to take the relevant kind of guarantee as primitive.

Let me just mention a difficulty with one potential proposal for further explicating the relevant kind of guarantee, both because it lies quite close to hand, and because issues in this vicinity will again arise in our discussion of belief retention below. Consider again Jack's acceptance of [It's raining] in Seattle at noon and Jill's simultaneous rejection in Chicago of [In Seattle: it's raining]. The fulfillment of the accuracy condition of Jack's acceptance in this case guarantees the fulfillment of the inaccuracy condition of Jill's rejection (and vice versa). One might here be tempted to offer the following by way of further explanation. Let the  $w$ -specification determined by the accuracy condition of Jack's acceptance be the set of all worlds  $w$  which are such that [It's raining]  $\langle w, \text{Seattle}, 12\text{pm} \rangle = \text{True}$ , and let the  $w$ -specification determined by the inaccuracy condition of Jill's rejection be the set of all worlds  $w$  which are such that [In Seattle: it's raining]  $\langle w, \text{Chicago}, 12\text{pm} \rangle = \text{True}$ . We here have disagreement, so the thought goes, because the  $w$ -specifications are the same. More generally, one might propose that an acceptance and rejection are in disagreement if the  $w$ -specification determined by one is a subset of the  $w$ -specification determined by the other.

This move will not work in general, however. Suppose, for example, that Jack is in Seattle at noon and accepts [Actually: it's raining], while his worldmate Jill, who is in Chicago at noon, rejects that proposition. And suppose further that Jack's acceptance is accurate, whereas Jill's rejection

is inaccurate, because it's raining at noon in both places. The difficulty is that while [Actually: it's raining] is *t*- and *l*-sensitive, it is not sensitive to the world parameter, so that the *w*-specification determined by both Jack's acceptance (viz.  $\{w: [\text{Actually: it's raining}] \langle w, \text{Seattle}, 12\text{pm} \rangle = \text{True}\}$ ) and Jill's rejection (viz.  $\{w: [\text{Actually: it's raining}] \langle w, \text{Chicago}, 12\text{pm} \rangle = \text{True}\}$ ) is the set of all possible worlds. The proposed account would therefore classify this as a case of disagreement, which it clearly isn't. We therefore can't, in general, rely on *w*-specifications to capture disagreement.<sup>8</sup> Considerations such as these suggest that a friend of stoic propositions will, as I've said, ultimately have to take the kind guarantee invoked in our account on board without further explanation. The relevant guarantee is nevertheless, I hope, clear enough to be of some use, and in particular, clear enough to serve as a guidepost once we turn to the question of belief retention below.

The second point I want to consider concerns a more local question about the descriptive adequacy of IN/ACCURACY CONDITIONS. What makes stoic propositions unusual is that the accuracy of an acceptance of such a proposition depends on features of the context of acceptance, since it is the context of acceptance which supplies the values of the CE relative to which the proposition must be evaluated to determine accuracy. And since stoic disagreement has to be understood not just in terms of the propositions accepted and rejected, but also in terms of the accuracy of the acceptance and rejection, the presence of disagreement likewise depends on those features of context. But given that agents may be mistaken about the relevant features of the context in which they find themselves, this may generate troublesome cases. Suppose, for instance, that Jack has been drugged, locked into the trunk of a car, and transported from Seattle to Chicago. Waking from his stupor, he believes himself still to be in Seattle, and, hearing the patter of drops of water on the roof of the car, he comes to believe that it's raining. Jill, who happens to be passing by, sees that it's water from an open hydrant which is splashing onto the roof of the car. Knowing it to be a sunny day, she believes that it isn't raining. Is this a case of disagreement? One feels a certain reluctant to answer affirmatively. And yet IN/ACCURACY CONDITIONS seems to have it that it is.

I don't think such cases are ultimately problematic, however. What our account of disagreement says is that insofar as Jack genuinely accepts the proposition [It's raining], his acceptance of that proposition is in disagreement with Jill's rejection of it. And that, I would contend, is correct. There are various ways of diagnosing our unease about the scenario described above that don't require us to deny this point. One diagnosis of what's happening is that the description of the scenario suggests not only that Jack accepts the proposition [It's raining], but also that he accepts the proposition [In Seattle: it's raining]. He does, after all, believe himself to be in Seattle, and some special story would have to be told about why we

should regard him as accepting the former proposition but not the latter. What accounts for our unease about the scenario on this view of the matter is that there isn't a straightforward answer to the question whether we've described a case of disagreement. If we consider Jack's acceptance of [It's raining], then he is in disagreement with Jill's rejection of that proposition; if, on the other hand, we consider his acceptance of [In Seattle: it's raining], he plainly isn't in disagreement with Jill's rejection of [It's raining]. Of course, Jack won't know that in accepting [It's raining], he disagrees with Chicagoans who accept that proposition. But again, this might simply be taken to show that ignorance of certain facts, like facts about where one is, can lead to ignorance about other facts, like facts about disagreement. A different diagnosis has it that Jack's beliefs about his current location are so severely mistaken as to make it implausible to attribute to him acceptance of the proposition [It's raining] at all. What he accepts, if anything, is just the proposition [In Seattle: it's raining], and to that extent his acceptance fails to be in disagreement with Jill's rejection of [It's raining]. Cases like the one we're considering therefore don't demonstrate a problem with IN/ACCURACY CONDITIONS, but merely serve to show that there may be epistemic conditions satisfaction of which is necessary to count as accepting certain propositions.

#### 4. *Retaining one's beliefs*

In the remainder of this paper, I want to consider a potential application of the resources developed in the account of stoic disagreement that I have proposed. In particular, I want to consider how these resources may help us make sense, from within a stoic framework, of what it is to retain a belief. Indeed, success in this matter is required if one is to defend a presupposition of any attempt to give a stoic account of disagreement.

Recall that when we introduced MacFarlane's (2007) notions of acceptance and rejection, we said that 'acceptance' ('rejection') was to be an umbrella term covering both the act of asserting (denying) a proposition and the act or state of believing (disbelieving) a proposition. In the course of addressing the issue of disagreement, we have been assuming that stoic propositions are the kinds of things that can be accepted or rejected, and thus the kinds of things that can be the contents of assertions and beliefs. This assumption has, however, been criticized by many theorists. The contents of assertion and beliefs, they argue, may not have their truth relativized to any parameters besides worlds – *strongly* stoic accounts according to which propositional truth is relativized to further parameters are thus ruled illegitimate. If one wants to offer an account of disagreement in terms of strongly stoic propositions, one must therefore answer the charge that such propositions are simply not eligible to function as

objects of assertion and belief. I won't here try to offer a full-scale defense of the view that strongly stoic propositions *can* play that role. I will confine myself to addressing one influential argument, due to Richard (1980), that they cannot. Specifically, I'll argue that the account of disagreement I have proposed puts resources at our disposal that help us respond to Richard's claim that strongly stoic propositions can't function as objects of belief because they won't let us make sense of belief retention.

Richard's argument is explicitly directed against the 'temporalist' – one who, in contrast to the 'eternalist', takes propositions to determine functions from CEs consisting of a world and a time. For the moment, I'll therefore set aside consideration of strongly stoic accounts that further relativize propositional truth; it should be kept in mind, however, that Richard's argument as well as my response to that argument naturally generalize to such accounts as well. The argument proceeds in two steps. First, Richard points out that the temporalist must give up the plausible assumption that to retain a belief is in all cases a matter of continuing to stand in the belief relation to the very proposition to which one once bore that relation. There is a sense in which this is surely correct. If Jack stands in the belief relation to the temporalist proposition [Paris is in turmoil] in 1968, and then continues to stand in the belief relation to that proposition the following year, then there is clearly a sense in which he does not thereby retain his earlier belief.<sup>9</sup> After all, his beliefs concern different years, and the previous year's state of unrest is irrelevant to the accuracy of his belief in 1969. Similarly, if Jack no longer believes the proposition [Paris is in turmoil] in 1969 although he did believe it the previous year, this needn't mean that he changed his mind about anything. The temporalist will therefore need to offer a modified account of belief retention in place of the simple standing-in-the-same-relation-to-the-same-proposition account available to the eternalist.

The second step in Richard's argument amounts to the claim that the modification that the temporalist needs to make to her account of belief retention faces difficulties. The account of belief retention that he presents on behalf of the temporalist is the following: for any temporalist proposition  $p$  and time  $t$ , there is a proposition  $p'$  such that for all times  $t'$ ,  $p'$  is true at  $t'$  iff  $p$  is true at  $t$ . If  $\pi$  denotes the proposition  $p$  and  $\gamma$  denotes the time  $t$ , we let  $N(\pi, \gamma)$  denote the proposition so related to  $p$  and  $t$ . Finally, we now say that an agent  $u$  retains a belief in a proposition  $p$  from an earlier time  $t_1$  to a later time  $t_2$  iff  $u$  believes  $p$  at  $t_1$  and  $N(p, t_1)$  at  $t_2$ . This modified account of belief retention, however, is problematic for three reasons, according to Richard. First, since  $p$  does not entail and is not entailed by  $N(p, t)$ , it is not clear 'why believing  $N(p, t)$  as opposed to some other proposition, should constitute a retention, from  $t$ , of the belief in the proposition  $p$ ' (Richard, 1980). Second, the account (still) does not satisfy the 'very strong presumption that retaining a belief consists in maintaining

a relation (belief) to a particular object' (Richard, 1980). And third, the account is *ad hoc*: given that the temporalist has to appeal to an eternal proposition as the object of belief in order to explain belief retention, 'why not simply say that whenever one has a belief, the object of one's belief is eternal?' (Richard, 1980).

I do not believe that the temporalist needs to despair in the face of this argument, however. As I've said, belief retention is the intrapersonal analogue of the interpersonal relation of agreement, so one's account of belief retention will be intimately related to one's account of disagreement. To assess Richard's argument, we'll need to consider what force his objections have once all the temporalist's options are on the table.

To begin, note that Richard's proposed account is in a certain sense underspecified. The account rests on the idea that for any temporalist proposition  $p$  and time  $t$ , there is an eternal proposition  $p'$  such that for all times  $t'$ ,  $p'$  is true at  $t'$  iff  $p$  is true at  $t$ . Taken strictly, however, this does not pick out a unique eternal proposition: given a temporalist proposition  $p$  and a time  $t$ , any eternal proposition  $p'$  having the same truth value as  $p$  at  $t$  will be such that for all times  $t'$ ,  $p'$  is true at  $t'$  iff  $p$  is true at  $t$ . One might at this juncture be tempted to identify the relevant eternal proposition as the  $w$ -specification (in the sense discussed in the previous section) determined by the acceptance of the temporalist proposition  $p$  at  $t$ . But in view of the close connection between disagreement and belief retention, together with the difficulties that beset this kind of proposal in the case of disagreement, this presumably isn't the route the temporalist will in the end want to go. A better way of understanding Richard's proposal, it seems, is in terms of the notion of accuracy conditions. Put in these terms, the thought would be that an agent  $u$  retains a belief in a proposition  $p$  from an earlier time  $t_1$  to a later time  $t_2$  iff at  $t_2$   $u$  believes an eternal proposition  $q$  which is such that the fulfillment of the accuracy condition determined by  $u$ 's acceptance of  $q$  at  $t_2$  guarantees the fulfillment of the accuracy condition determined by  $u$ 's acceptance of  $p$  at  $t_1$ , and vice versa.

Phrased in this way, however, the proposal begins to look rather unmotivated from the temporalist's point of view. Why should we require that the proposition  $q$  that is accepted at the later time be of the eternal sort? Surely, a temporalist is more likely to go in for an account along the following lines: an agent  $u$  retains a belief in a proposition  $p$  from an earlier time  $t_1$  to a later time  $t_2$  iff at  $t_2$   $u$  believes a proposition  $q$  (of either eternalist or temporalist sort) which is such that the fulfillment of the accuracy condition determined by  $u$ 's acceptance of  $q$  at  $t_2$  guarantees the fulfillment of the accuracy condition determined by  $u$ 's acceptance of  $p$  at  $t_1$ , and vice versa.<sup>10</sup> The question we have to consider is how Richard's argument fares when directed at this account.

The temporalist account of belief retention I have proposed is of course aimed squarely at Richard's third objection: that the temporalist might as

well embrace eternal propositions as belief contents across the board since she has to rely on them to explain belief retention anyhow. This objection obviously falls flat in light of the account we are considering. The temporalist isn't committed to the thought that eternal propositions, or as I've been calling them, *t*-insensitive propositions, *cannot* be the objects of belief, but merely that they are not the *only* objects of belief. Richard is, I think, right that it would be an embarrassment to the temporalist if she were forced to concede that the objects of belief required to make sense of belief retention nevertheless must be of the eternal sort. What our account shows, however, is that the temporalist need not make this concession.

Believing an appropriately related eternal proposition is certainly one way of retaining one's past belief in a temporalist proposition; but believing an appropriately related temporalist proposition is also a way of retaining one's past belief in a temporalist proposition. To take our earlier example, suppose Jack believes the *t*-sensitive proposition [Paris is in turmoil] in 1968. Richard is right that Jack can retain that belief in 2008 by believing the *t*-insensitive proposition [In 1968: Paris is in turmoil]; but of course Jack can *also* retain that belief in 2008 by believing the *t*-sensitive proposition [40 years ago: Paris is in turmoil], because this too will amount to having a belief the fulfillment of the accuracy condition of which will guarantee the fulfillment of the accuracy condition determined by the belief Jack had in 1968. Richard is therefore mistaken that the temporalist must appeal 'exclusively to eternal propositions' when explaining belief retention (Richard, 1980). What the temporalist will want to appeal to are accuracy conditions, and this notion involves no essential appeal to *t*-insensitive propositions.

The eternalist might, at this juncture, try to resurrect his objection in a different guise. What is doing all the work in the temporalist's account is the notion of the accuracy condition of a belief. Given the central role accorded to accuracy conditions by the temporalist, shouldn't we just identify the entire accuracy condition, rather than the stoic proposition involved, with the propositional content that the agent is credited with believing at the different times? What Jack believes in 2008, so the thought goes, isn't the temporalist proposition that Paris was in turmoil 40 years ago, but rather the proposition that it is true that Paris was in turmoil in the actual world 40 years prior to 2008, or something along those lines. The only thing the temporalist can say in response to this point, I think, is to insist on the distinction between what one believes and what is required for the accuracy of one's believing what one does. Even most run-of-the-mill eternalists will, after all, allow that eternal propositions, though *t*-insensitive, are nevertheless modally neutral. And insofar as one accepts even this degree of neutrality, one must allow that merely specifying a proposition does not yet settle the accuracy of a belief with that proposition as its content. One minimally also has to specify what world it is that

is determined by the context in which the relevant belief is held. Since nothing in Richard's argument up to this point has shown that relativization of propositional truth is quite generally illegitimate, it wouldn't be fair to begrudge the temporalist her appeal to the accuracy condition of a belief as something distinct from the content of that belief.

This leaves us with Richard's first and second objections. His first objection is that since the proposition the agent entertains at the later time neither entails nor is entailed by the proposition he entertained at the earlier time, we have no explanation of why believing *that* proposition rather than some other proposition at the later time should constitute belief retention. This objection also appears somewhat puzzling in light of the account we've proposed on the temporalist's behalf, however. Surely, the temporalist *does* have an explanation of why believing that proposition rather than some other proposition at the later time constitutes belief retention: believing that proposition is what is required to have a belief the fulfillment of the accuracy condition of which guarantees (and is guaranteed by) the fulfillment of the accuracy condition of one's past belief. In fact, the eternalist will have to concede that, even on her account of belief retention, this relation *does* obtain in every instance of a belief's having been retained. So what about this relation, in contrast to the envisioned entailment relation, is supposed to disqualify it as an appropriate explanation of what is involved in retaining one's past beliefs?

One thing that certainly distinguishes the entailment relation from the temporalist's alternative is that entailment is a relation between the *propositions believed*, whereas the temporalist's is a relation between the accuracy conditions of the *states of believing* the relevant propositions. The thought might therefore be that belief retention must be capable of being spelled out purely in terms of the things believed, without appeal to the believing of those things, so to speak. But what can be said for this demand? Why must belief retention be accounted for just in terms of the proposition believed without appeal to the context in which it is believed? One reason why one might hold this is because one thinks knowledge of one's environment can't be something one needs to exploit simply in order to retain one's beliefs. But this is rather dubious. There's certainly nothing about eternalism *per se* that requires this – the eternalist might, for example, well allow that demonstrative beliefs about objects in one's surroundings are only retained to the extent that one properly tracks the relevant objects. A perhaps better reason for acceding to the demand is that one thinks the demand just *is* satisfied by the ordinary notion of belief retention, i.e. because one accepts Richard's second objection: that the temporalist's account ought to be rejected because it violates the 'strong presumption' that retaining a belief *does* simply consist in maintaining a relation to a particular proposition. It is this objection that, it seems, Richard's argument ultimately comes down to.



One thing that appears to speak in favor of this presumption that we do lay claim to having retained a belief by saying things like ‘I still believe what I used to believe’ or ‘I now believe the same thing I used to believe’. But note that if our account of belief retention is to do justice to such talk, the temporalist is not the only one in trouble. We have allowed that the temporalist ought to acknowledge that there is a sense in which someone who continues to stand in the belief relation to the proposition [Paris is in turmoil] from one year to the next does not thereby retain his belief; but of course there is *also* a sense in which he *does*.

Richard concedes, for example, that ‘there is *some* sense in which what is said by an utterance of “Nixon is president” on Monday is the same thing as what is said by an utterance of this sentence on Wednesday’ (Richard, 1980). To this one might add that there is not only a sense in which what is said via these utterances remains the same, but also a sense in which the belief thereby expressed remains the same. After all, someone who speaks sincerely presumably believes what they’ve said. If Jill sincerely utters ‘Nixon is president’ on Monday and then again on Wednesday (perhaps an election even took place on Tuesday), then there is not only a sense in which she has said the same thing on both occasions, but also a sense in which she has continued to believe on Wednesday what she believed on Monday.<sup>11</sup> If our account of belief retention is to track such talk of ‘believing the same thing’ while adhering to the continuing-to-stand-in-the-same-relation-to-the-same-proposition model of belief retention, we must apparently introduce precisely what the eternalist abjures, namely temporalist propositions. Things needn’t end there, either. As Lewis (1980) notes, even utterances of ‘I am hungry’ by different speakers can be reported by saying that the two have ‘said the same thing’, and, it seems, by saying that the two believe the same thing.<sup>12</sup> So if we aim to remain faithful to talk of believing the same thing, agent-neutral propositions may have to be admitted as well. Clearly, then, such talk does not provide the eternalist firm ground on which to reject temporalism or other stoic proposals.

What these considerations demonstrate is that there exists both a broader and a narrower notion of ‘belief retention’. The narrower notion is the one we’ve been presupposing in most of the present discussion – the one according to which belief-retention and change-of-mind can be characterized as the intrapersonal analogues of the interpersonal relations of agreement and disagreement. The broader notion is the one according to which talk of belief retention ought to track talk of believing the same thing. Richard is certainly right that the temporalist’s account of belief retention in the narrower sense is, unlike the eternalist’s, not one according to which belief retention is simply a matter of continuing to stand in the same relation to the same proposition. But this observation can’t function as grounds for rejecting temporalism. The only reason to impose the

requirement that belief retention be a matter of continuing to stand in the same relation to the same proposition, it seems, is that we think our account of belief retention ought to do justice to our talk of when people believe the same thing. And this, as we've seen, is something the eternalist can't accept. The eternalist might, of course, claim that although an account of belief retention needn't make sense of *all* of our talk about a person's believing the same thing at different times, it nevertheless ought to be such that any case which our account classifies as a case of belief retention also be a case in which the proposition believed is the same. But this now just sounds like special pleading – intransigent insistence that talk of believing the same thing when characterizing cases involving belief retention in the narrower sense ought to be taken to indicate the involvement of a unique proposition, while other cases involving the same talk may happily be ignored.

This isn't to say that the temporalist has no work to do to explain belief retention. If Jack continues to believe the proposition [Nixon is president] year in year out, he has failed to attune his beliefs to a changing world, and the temporalist ought to be able to give an account of what such attunement requires. It would surely count against the temporalist if her account then appealed exclusively to eternal propositions, as Richard claims it must. What I've tried to point out is that it need not: it can instead appeal to the notion of accuracy conditions, which the temporalist already needs to explain agreement and disagreement.<sup>13</sup>

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#### NOTES

<sup>1</sup> I borrow this term from Evans (1996), who coins it in response to Geach's suggestion that the Stoics may have viewed the contents expressed by utterances of e.g. 'Dion is alive' as temporally neutral. Evans reserves the term for temporally neutral propositions, whereas I here use it as an umbrella term for any proposition the truth of which is somehow relativized.

<sup>2</sup> MacFarlane (2007) argues that the failure of the simple account of disagreement goes hand-in-hand with acceptance of stoic propositions of *any* stripe, since a version of the problem considered above arises even if propositional truth is relativized to nothing but worlds: Jack's actual acceptance of the proposition that Obama won the 2008 US presidential election and Jill's rejection of that same proposition in some other possible world, perhaps one where Obama didn't win, are not in disagreement. See Cappelen and Hawthorne (2009) for a critical discussion of this point.

<sup>3</sup> See e.g. MacFarlane (2007, 2009, and forthcoming) and Lasersohn (2005).

<sup>4</sup> See e.g. Cappelen and Hawthorne (2009) for an endorsement of the simple account.

<sup>5</sup> This notion of what an acceptance or rejection concerns is derived from Perry (1986), and also invoked by MacFarlane (2007). My notion of the 'context of acceptance' should not be confused with MacFarlane's notion of the 'context of assessment': the context of assessment is the context occupied an agent assessing some potentially different agent's

acceptance of a proposition for accuracy, whereas the context of acceptance is the context occupied by the agent who accepts (i.e. asserts or believes) the relevant proposition. Since I am assuming that the CE that is relevant to the assessment of an acceptance is entirely determined by the context of acceptance, I am working within what MacFarlane (2009) calls a 'nonindexical contextualist' framework. By contrast, a relativist, in MacFarlane's (2007) sense, holds that the context of assessment and the context of acceptance (his 'context of use') may both contribute to the determination of the CE that is relevant to the assessment of an acceptance. I confine my attention to nonindexical contextualism for the sake of simplicity, but much of what I say about disagreement could be applied within a relativist framework by appropriately re-construing how the CE relevant to the accuracy of an acceptance is determined.

<sup>6</sup> MacFarlane (2007) proposes CAN'T BOTH BE ACCURATE as an account of what is required for two parties to disagree. In view of the fact that there is likely to be some disagreement between any two individuals, I here consider the more fine grained question of when someone's acceptance of a particular proposition is in disagreement with another's rejection of a particular proposition. I have therefore slightly reformulated MacFarlane's account to adapt it to the present analyzandum. I became aware of the desirability of considering this more fine grained notion in the course of discussion of the matter in John MacFarlane's seminar on assessment sensitivity at UC Berkeley in the Spring Semester of 2009.

<sup>7</sup> Compare MacFarlane (2007), who also points out that the requirement that the propositions accepted and rejected need to be identical must be relaxed to allow for cases in which the propositions are merely 'suitably related'.

<sup>8</sup> Cases like these are also readily generated if one allows stoic propositions the truth of which is relativized to different kinds of parameters than those we've been considering, such as states of information. Suppose  $[\phi]$  is a proposition whose truth is determined entirely by the information state (e.g. the proposition that it might be raining in Seattle at noon), and is accordingly insensitive to the  $w$  parameter. Letting  $s$  be an information state, the set of worlds  $w$  such that  $[\phi](s,w) = \text{True}$  will then be either the set of all worlds, or the empty set, depending on whether  $s$  does or does not meet the condition imposed by  $[\phi]$ . The  $w$ -specification of an accurate acceptance of such an informationally sensitive proposition will thus be the same as the  $w$ -specification of an inaccurate rejection of any such proposition. But one presumably wouldn't want to count any accurate acceptance of an informationally insensitive proposition as being in disagreement with any inaccurate rejection of such a proposition.

<sup>9</sup> Though there is, importantly, also a sense in which he does. I return to this below.

<sup>10</sup> This is of course not a *complete* account of belief retention; but then neither is the eternalist's standing-in-the-same-relation-to-the-same-proposition account. Both accounts minimally require the added proviso that  $u$  believes  $q$  at  $t_2$  because she believed  $p$  at  $t_1$ . I don't, for example, count as having retained my belief that the year is 2009 if I once believed this, then suffered amnesia, and have now again learned that it's 2009.

<sup>11</sup> Aronszajn (1996), for example, stresses the sense in which this kind of case counts as a case of same-believing. See also Recanati (2007).

<sup>12</sup> See Chapter 2 of Cappelen and Hawthorne (2009) for further examples like this.

<sup>13</sup> Earlier drafts of this paper were presented at a meeting of the Wollheim Society at UC Berkeley and at the 2009 Berkeley-London Philosophy Conference. I'd like to thank both audiences for their feedback. I also want to thank John MacFarlane and Stanley Chen for discussion of various parts of this paper, Lee Walters for his thought-provoking comments at the Berkeley-London Conference, and two anonymous referees for their constructive criticism.

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