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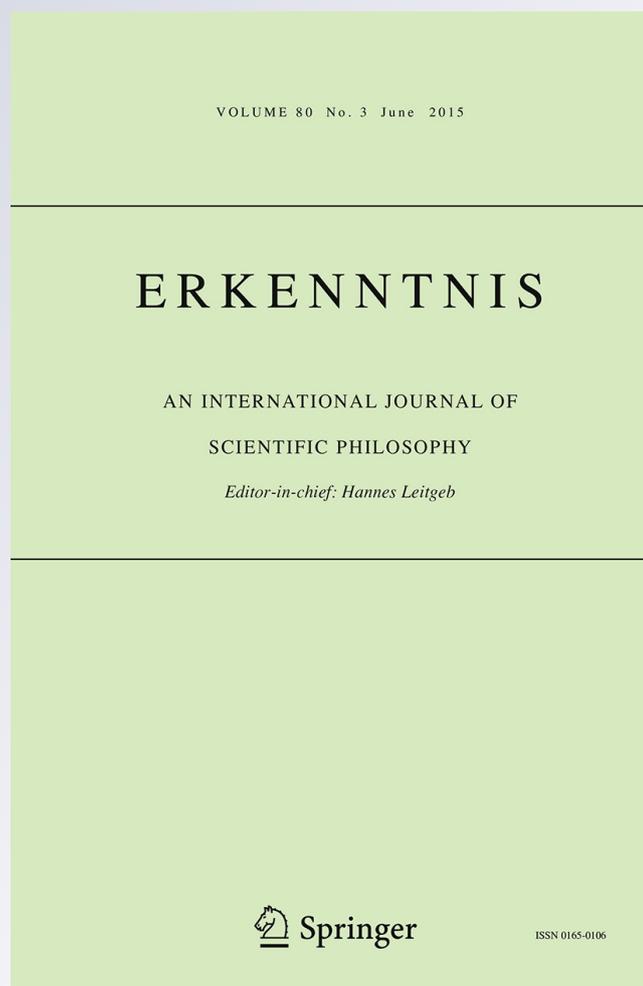
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Belief Retention: A Fregean Account

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Abstract Concerning cases involving temporal indexicals Kaplan has argued that Fregean thoughts cannot be the bearers of cognitive significance due to the alleged fact that one can think the same thought from one occasion to the next without realizing this—thus linking the issue of cognitive significance to that of belief retention. Kaplan comes up with his own version of the Fregean strategy for accounting for belief retention that does not face this kind of a problem; but he finds it deficient because it leads us to implausibly deny that one who is lost in time retains the beliefs one held before this occurred. I take issue with Kaplan though in conformity with his plausible demands about belief retention and argue that a situation does not arise in which one can fail to realize that one is thinking the same thought from one occasion to the next. I also argue that thoughts are the bearers of cognitive significance as well as explanatory of belief retention.

0. Frege holds that there is a close link between the linguistic meaning and the sense of a non-indexical designator—such as a (non-indexical) definite description—in that understanding its meaning amounts to grasping its sense as the mode of presentation of the thing it designates. Understanding the meaning of ‘the Evening Star’ thus supplies the subject with a particular way of thinking of Venus—the object it designates as a matter of its conventional meaning. But Frege does not think that this link can be preserved in the case of indexicals since the same sense (and thought) can be expressed and retained by indexicals with different linguistic meanings. He says that:

(R) If someone wants to say today what he expressed yesterday using the word ‘today’, he will replace this word with ‘yesterday’. Although the thought is the

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same its verbal expression must be different in order that the change of sense which would otherwise be effected by the differing times of utterance may be cancelled out (Frege 1918/1977, p. 10).

But Kaplan thinks that this creates a problem for Frege's own doctrine that thought is the bearer of cognitive significance:

If one says 'Today is beautiful' on Tuesday and 'Yesterday was beautiful' on Wednesday, one expresses the same thought according to the passage quoted. Yet one can clearly lose track of the days and not realize one is expressing the same thought. It seems then that thoughts are not appropriate bearers of cognitive significance (Kaplan 1989a, p. 501, n. 26).

Kaplan comes up with a conceptual apparatus that does not face this kind of problem. He is a referentialist and he holds that a propositional content expressed by an utterance of an indexical sentence such as 'Today is beautiful' is Russellian in that it consists solely of the day being referred to and the property of *being beautiful*. But this kind of content cannot be the bearer of cognitive significance for the same reason that in Kaplan's view Fregean thoughts cannot be the bearers of cognitive significance: one can lose track of the days and not realize that one is expressing the same content twice. It does not serve to rationalize the subject's cognitive perspective. This has led Wettstein (1986, 2004), who is also a referentialist, to hold that it is thankfully not part of the business of semantics to deal with cognitive significance. The business of semantics is to get the truth conditions right and tell us what propositions various sentences express. But Perry has rightly argued that it is part of the business of semantics to explain cognitive significance. A correct semantic theory needs to provide us with an appropriate interface between what sentences mean (express) and how we use them to communicate beliefs in order to motivate and explain action (Perry 2001, p. 8; see also Perry 1988). Kaplan also takes this line. In conformity with it, he considers seriously Frege's strategy of adjusting verbal expression in order to enable the same belief to be expressed as context changes, making his account of belief retention part of his account of cognitive significance—in a manner similar to Frege on the evidence of (R). In terms of Kaplan's own apparatus (1989a), this amounts to adjusting *character* as the kind of *meaning* of an indexical expression which is set by linguistic conventions and which both determines the Russellian content of the expression (what is said) in every context and is the *bearer* of cognitive significance of the expression. The character presents different objects (of thought) to different persons and to the same person at different times (Kaplan 1989a, p. 530). It accounts for the common element that different belief states have irrespective of context.¹ The character of 'today' (*the current day*) presents the day the subject is thinking of in one particular

¹ Kaplan (1989a) equates the notion of the character of an indexical expression with that of its linguistic meaning. But Braun (1996) has argued that as far as demonstratives such as 'that' are concerned, linguistic meaning does not amount to character, since various occurrences of 'that' can have different characters while retaining the same linguistic meaning. In 'Afterthoughts' (1989b, p. 586), Kaplan admits that in the case of proper names character is not an adequate substitute for cognitive role. For, names such as 'Hesperus' and 'Phosphorus' have the same character in spite of their having different cognitive roles. These issues, however, have no bearing on the present discussion.

way, while the character of ‘yesterday’ (*the previous day*) presents it in a different particular way which makes character play the role of a mode (manner) of presentation. This makes the same Russellian content, e.g. *that day d is beautiful*, expressible by (and graspable under) the characters of ‘Today is beautiful’ and ‘Yesterday was beautiful’ as the context changes, which suggested to Kaplan a Frege-inspired strategy of accounting for belief-retention hinted at in (R). But Kaplan finds this strategy falls short of supplying us with some obvious standard adjustment to make to the character. To show this, Kaplan invokes the case of Rip Van Winkle who slept for twenty years and woke up thinking he had slept for just one day (1989a, pp. 537–538). If, on the day he fell asleep—let us call it day **d**—Rip acquired the belief that he held by accepting ‘Today is beautiful’, he would, upon waking up, naturally try to update it by ‘Yesterday was beautiful’. But, because Rip has lost track of time, this, in Kaplan’s view, shows that the Frege-inspired strategy of adjusting verbal expression in order to express the same belief leads us to deny that Rip has retained the given belief. For what is left of the original belief is the belief about the day before he woke up that it was beautiful. But Kaplan finds this strange. For Rip seems to *remember* (that) **d** (was a beautiful day).

Kaplan’s foregoing comment on (R) makes it clear that, for such a belief to be retained, it is not enough that the subject thinks of the same day and believes the same Russellian content from one occasion to the next. An internal continuity in the subject’s belief is also required that, Kaplan observes, eludes being accounted for in terms of some obvious standard adjustment in the character. In agreement with this, I will argue that the internal continuity in the subject’s belief needs to be accounted for in terms of Frege’s claim contained in (R): that representing a certain day as the same from one occasion to the next is to think of it via the same sense, i.e. under the same mode of presentation—which makes the thought of which it is a constituent the bearer of cognitive significance. Cognitive significance is of a piece with the internal continuity of the subject’s belief and we need to deal with it in accounting for belief retention—even if it turns out that it is not part of the business of semantics, as Wettstein holds.

1. Acknowledging that Rip has retained the belief about **d** (that it was beautiful) conflicts with the following consequence of the Frege-inspired strategy for accounting for belief retention:

(P) One’s sincere acceptance of an utterance of an appropriate temporal indexical commits one to thinking of the day it designates in virtue of its linguistic meaning, whichever day it is that one intends to think about.

(P) is part of Kaplan’s view that indexicals shape the subject’s ways of thinking of Russellian content in virtue of their meanings. On the evidence of (R), Frege also seems to embrace (P)—in spite of the fact that in his view the meanings of ‘today’ and ‘yesterday’ do not shape the subject’s ways of thinking of the days, i.e. that ‘today’ and ‘yesterday’ are just means of expressing and retaining the same thought as the context changes. Evans takes Frege’s line further and claims, contra Kaplan, that Rip has not retained the belief with which he began, arguing that after waking up he is instead suffering an illusion of having retained such a belief because he has lost track of time (Evans 1985, p. 311, n. 21). I take it, though, that Kaplan is right

here in claiming that Rip has retained the belief with which he began. For otherwise, any similar mis-tracking of days would need to deprive one of the belief with which one began. Suppose that on Tuesday I form an indexical belief that I express by 'Today is beautiful'. Then, being unaware that midnight has passed, I utter the same sentence again with the intention of re-expressing that very belief. But this surely does not deprive me of continuing to believe what I believed before midnight; nor does it make me think of Wednesday that it is beautiful. Although I have mis-tracked Tuesday in this way, I have kept track of it in a sense that enables me to retain the given belief: Tuesday is the sole causal source of the belief I am having, and I am representing it as the same day from one occasion to the next. And the same should hold for Rip. The relevant belief he is having after waking up has **d** as its sole causal source and he is representing **d** as the same as the day that his original belief was about. This makes (P) gratuitous. In spite of the fact that, upon waking up, Rip will reach for 'Yesterday was beautiful', given his view of how the context has changed, the belief he intends to express is not aimed at the day before he woke up—which in the given context 'yesterday' picks out in virtue of its linguistic meaning. For, that day is neither the causal source of his belief nor is it the day upon which he is cognitively fixed, given that he has slept through it. Yet, notwithstanding Rip's intentions, 'yesterday' designates here that very day in virtue of the rules governing its use—and he is saying something false about *it* if it was not beautiful. Accordingly, as will become clear, thoughts and senses are the bearers of cognitive significance and they allow us to account for belief retention even though the referent of at least some utterances of indexicals—e.g. Rip's 'yesterday'—is not determined by the sense that the utterer attaches to them. This is a departure from Frege, who took sense to play both these roles.

When the subject keeps track of the days along the lines of (R), there is no mismatch between the day that 'today' and 'yesterday' designate in virtue of the rules governing their use and the day the subject is thinking about. In this kind of case it is inappropriate, indeed irrational, for the subject not to be disposed to accept an indexical that, in the context of utterance, designates the day upon which he is cognitively fixed—which creates a certain dependence between them. But this dependence does not entail (P). Short of relying on (P), we can acknowledge the fact that Rip has retained the belief with which he began.

I will argue that retaining the belief about day **d** with which one began consists in one's keeping track of **d** in compliance with the two aforementioned conditions: that it stems from **d** as its sole causal source, and that one is representing **d** as the same day from one occasion to the next. Such a belief amounts to a thought of a broadly Fregean kind that persists through a change of context. It is unconstrained by (P), and it serves to rationalize the subject's cognitive perspective. In acknowledging that the linguistic meanings of indexicals such as 'today' and 'yesterday' do not shape our ways of thinking of days, i.e. that 'today' and 'yesterday' are just means of expressing the same thought as the context changes, I take Frege's point of departure but do not follow it up with (P)—which stands in the way of acknowledging that Rip has retained the belief with which he began.

In trying to substantiate this view of belief retention, my first task will be to show that such a thought is the bearer of cognitive significance, contrary to what Kaplan would have us believe. I shall then discuss its other features.

2. As remarked, when commenting on (R) Kaplan claims that one can lose track of the days and not realize that one is expressing the same thought, which in his view shows that thoughts are not appropriate bearers of cognitive significance. But this is not right. For the situation does not arise in which the subject can mistake one thought for two. For unlike Rip, a subject from Kaplan's foregoing scenario will lose track of the days, and this will deprive him of thinking the thought with which he began, such that the possibility of mistaking one thought for two different ones does not arise. If he acquired a belief on Tuesday that he expressed by 'Today is beautiful', and then lost track of it such that he does not realize that the sentence he assents to the following day 'Yesterday was beautiful' is about the same day, the latter thought will not be the same as the former. For, he is not representing the given Tuesday as the same day from one occasion to the next and it will be informative for him to be told that both thought episodes concern the same day.

Similarly, when the subject does not have problems keeping track of a single day, and keeps thinking a single thought from one day to the next, he will not fail to re-identify the thought he is thinking. The fact that his belief has the required internal continuity, as well as that it has this particular day as its sole causal source, ensures this. This is in line with the Fregean principle that it is impossible for a rational thinker to take conflicting epistemic attitudes to a single thought.²

To make this clear, consider a parallel case concerning perception-based demonstrative thoughts about objects. Campbell has claimed that to think of a perceived object via the same sense from one occasion to the next amounts to keeping track of it (Campbell 1987; see also Evans 1982, p. 196). Keeping track of an object is done unreflectively. It is part and parcel of the unreflective use of perceptual demonstratives that the subject takes the perceptual information that he is receiving about an object from moment to moment to have a single object as its causal source, i.e. that he represents it as the same. Raising the question about the identity of the perceived object is a *reflective* project which requires that the subject be thinking about

² See, e.g. Frege (1892/1980, p. 62; 1906/1979, p. 197). Many philosophers, including neo-Fregeans such as Evans (1982, pp. 18–22), McDowell (1986, p. 142; 2005, p. 49) and Campbell (1987, 2005, pp. 205–206) take this principle (or some version of it) to be crucial for individuating relevant beliefs (and other attitudes) as featured in propositional attitude psychology. In a similar vein, Schiffer (1978, p. 180) speaks of Frege's Constraint, claiming that any candidate must satisfy this constraint in order to qualify as a mode of presentation; while Perry (2001, pp. 8–9) speaks of a cognitive constraint on semantics and accepts a version of it that conforms with his referentialism. As noted, Perry has rightly urged against Wettstein that it is part of the business of semantics to deal with cognitive significance. But, see Bozickovic 2008 for an argument that Perry's framework is ill-suited to account for cognitive significance in relation to the co-reference problem. See also Bozickovic 2005 for a pinpointing of the problems that Perry faces in accounting for belief retention.

While thinking a single thought about **d** over a period of time, the subject may first think that **d** is beautiful and later on change his mind about this due to, say, his misremembering the weather on **d**. It is in this sense possible for him to take the thought he is thinking first to be true and then to be false, but in doing so he does not fail to re-identify it. This possibility does not arise, though, when the subject's different thought episodes take place at the same time. This is a requirement that Evans (1982) builds into Frege's principle.

the character of his perceptions. It takes us away from the ground-floor, *unreflective* use of perceptual demonstratives (Campbell 1987, p. 284). This includes cognitive skills that belong to a sub-personal level that are non-conceptual (op. cit., p. 283). If the subject *actually does* make what Campbell calls a division in the perceptual information he is receiving, i.e. if he suspects that one object has been substituted for another, so that he can raise the question whether it is the same thing that is in question, then we have two modes of presentation (op. cit. pp. 284–285), i.e.:

We can acknowledge this, while respecting the Fregean principle that it is impossible for a rational thinker to simultaneously take conflicting attitudes to a single thought. For ‘rationally taking conflicting attitudes’ here will require the thinker to make a division in his input information: and once he has actually made the division, we will indeed have different senses (Campbell 1987, p. 285).

It is to be noted that by Campbell’s own lights this is not a simultaneous but rather a diachronic matter when tracking thoughts are involved. For he claims that if one does succeed in keeping track of an object over time, then one must know immediately that it is the same thing that is in question (Campbell 1987, p. 285).

A similar point can be made about tracking days—although this involves different cognitive skills from those involved in tracking objects. In keeping track of an object, the subject maintains a (more or less) continuous experiential link with the object. By contrast, keeping track of a certain day cannot by its nature involve this kind of link once the day has passed (and nor can the subject re-encounter the day), so it needs to rely on the subject’s memory of the day. (To this I shall return below.) Yet the two kinds of case are similar in the following important respect. As long as the subject represents an object or day as the same from one occasion to the next, he will both think of it under the same mode of presentation *and* be aware of his doing so. Representing an object or day as the same makes him ‘know immediately that it is the same thing that is in question’, so that he knows that the mode of presentation is the same, i.e. he cannot fail to re-identify it from one occasion to the next. Hence, he cannot fail to re-identify the thought with which he began—the thought containing the given mode of presentation as its constituent.

3. This makes the sameness in thoughts transparent to the subject. If two thoughts are the same (have the same content), the subject can realize a priori that they are the same (see Brown 2004, Chap. 6). This is in line with the Fregean principle that it is impossible for a rational thinker to take conflicting epistemic attitudes to a single thought. Yet this does not entail the Cartesian view that the subject is omniscient about contents of his own mind. Since the subject’s realizing that he is thinking the same thought from one occasion to the next (inter alia) amounts to representing the day that he is thinking about as the same from one occasion to the next, his doing so does not involve him having (direct) access to the contents of his own mind. In fact, the issue of whether the subject is having (direct) access to the contents of his own mind does not arise.³

³ Dummett approvingly ascribes to Frege the view that we are omniscient about senses (1981, p. 51). But Brandom (1994, p. 571) wonders whether Frege was ever committed to this view (which Brandom is himself unsympathetic with). More recently, Almog saddles Frege with this view when he argues against Frege’s (alleged) contention that identity and distinctness judgements vis-a-vis senses we are omniscient

That a rational thinker cannot take conflicting epistemic attitudes to a single thought makes it the case that thoughts are the bearers of cognitive significance, i.e. it makes them explanatory of the subject's actions and behaviour. They serve to rationalize the subject's cognitive perspective. Suppose that on Tuesday I acquire a belief that I express by 'Today is beautiful'. I keep track of the given Tuesday through to Wednesday and update the belief I am holding by 'Yesterday was beautiful'. This meets the internal continuity requirement by making the thought that I think on Tuesday and through into Wednesday the same. This gives rise to one kind of action. But if I were to lose track of the given Tuesday and fail to realize that the sentence that I assent to the following day 'Yesterday was beautiful' is about the same day, the latter thought would not be the same as the one with which I began, as argued. This gives rise to another kind of action.⁴

4. Keeping track of a day and thinking of it under the same mode of presentation from one occasion to the next may involve thoughts whose existence does not require that the subject has epistemic contact with it. On day $d - 1$, the subject may form a belief about d which he expresses by 'Tomorrow will be beautiful' although he has not been in epistemic contact with d . This is what Perry (1997) aptly calls a sourceless belief, i.e. a belief typically held about future days that cannot be part of the cause of our beliefs. When d comes, and turns out to be beautiful, the subject may try to update the belief he has on the basis of his coming into epistemic contact with d by accepting 'Today is beautiful'. His sourceless belief about d 's being beautiful has given way to a belief that involves his having epistemic contact with d . Or alternatively, he may form a belief about d that he expresses by 'Tomorrow will be beautiful' on $d - 1$, after which he sleeps through d , and then wakes up on $d + 1$, knowing which day it is. Still convinced about the weather on d —which he was in no position to experience—he may update his belief by accepting 'Yesterday was beautiful'—in which case one sourceless belief gives way to another.

Unlike those beliefs that have their causal source in days with which the subject has been in epistemic contact, sourceless beliefs about days seem to line up with (P)—the claim that one's sincere acceptance of an utterance of an appropriate temporal indexical commits one to thinking of the day it designates in virtue of its linguistic meaning, whichever day it is that one intends to think about. For the subject who is having a sourceless belief—such as one that he may express by

Footnote 3 continued

about are to explain the informativeness of identity judgements vis-a-vis worldly objects about which we are not omniscient (Almog 2008, p. 567). On a different note, Almog believes that the notion of cognitive significance, although pre-theoretically available, is not of theoretical use. But, as we saw above in relation to Wettstein—who makes a similar claim but within a different "conceptual framework"—cognitive significance is of a piece with the internal continuity of the subject's belief, and it needs to be dealt with in accounting for belief retention—even if it turns out that it is not part of the business of semantic theory.

⁴ To illustrate this, suppose that I am in the habit of watering my flowers with the same amount of water each day, but I lose track of the days in the way suggested. Not realizing on Wednesday that the thought I am thinking and expressing by 'Yesterday was beautiful' is about Tuesday, I end up thinking that I have watered my flowers on one of the two days that I respectively take Tuesday for but not on the other. To redress the balance, I decide to water my flowers with double the amount of water—something I would not do if I were to keep track of the days and think a single thought from Tuesday through to Wednesday.

'Tomorrow will be beautiful'—will be guided by character, i.e. the linguistic meaning, of 'tomorrow', in thinking about the forthcoming day with which he has not yet been in epistemic contact.

I have argued that (P) needs to be abandoned so that we can acknowledge the fact that Rip has retained the belief with which he began. But, in view of the possibility of having a sourceless belief of the aforementioned kind, it may seem that this fact can be acknowledged without abandoning (P). It may be claimed that when Rip awakes he has two different beliefs that line up, respectively, with two different characters, which in turn makes characters play the modes (manners) of presentation role. One of these beliefs lines up with 'Yesterday was beautiful', which is about the day before he woke up—let us call it day \mathbf{d}^* —while the other lines up with 'That day was beautiful' which is about \mathbf{d} . For otherwise we cannot account for the fact that, in the given context, he is to assent to all of these statements:

- (1) Yesterday was beautiful
- (2) That day was beautiful
- (3) That day = Yesterday

For after waking up, Rip is disposed to assent to the false (3); and given (3), the true (2) is inter-derivable with (1). Rip might think that (1) and (2) are about the same day, but that would be another mistake.

Appearances aside, Rip does not hold both beliefs. For, this would require that in addition to the belief about \mathbf{d} that it was beautiful that Rip is credited with he also has a belief about \mathbf{d}^* , which, due to his sleeping through \mathbf{d}^* , cannot be a belief that has its causal source in \mathbf{d}^* . But it will not do to credit him with a sourceless belief about \mathbf{d}^* either. For, in the described circumstances, it is not a sourceless belief about \mathbf{d}^* that Rip aims at in accepting 'Yesterday was beautiful', but rather he aims at the belief that has \mathbf{d} as its source. Even if such a sourceless belief were available to Rip, it would be irrelevant in the present context in which Rip is updating his belief about \mathbf{d} that has its causal source in \mathbf{d} .

So, it is not the case that Rip believes the false (3), i.e. that $\mathbf{d} = \mathbf{d}^*$. He rather takes 'that day' and 'yesterday' to be picking out \mathbf{d} in the given context in virtue of their linguistic meanings; and similarly for (1). Rip believes falsely that 'yesterday' picks out \mathbf{d} . Hence, (P) does not hold.⁵

5. In believing falsely that 'yesterday' picks out \mathbf{d} , Rip does in a sense think of \mathbf{d} as *the previous day*, making it the case that the linguistic meaning of 'yesterday' plays a role in shaping his way of thinking of \mathbf{d} . To put this into the right perspective, recall the claim that thinking of \mathbf{d} under the same mode of presentation from one occasion to the next requires (inter alia) that the subject represents \mathbf{d} as the

⁵ A similar response can be given to a similar objection that someone might raise concerning the foregoing case in which on Tuesday I form an indexical belief that I express by 'Today is beautiful' and, being unaware that midnight has passed, I utter the same sentence again with the intention of re-expressing that very belief. Someone might claim that, in conformity with (P), in the given circumstances I believe the false $Today_1 = Today_2$, i.e. that Tuesday = Wednesday. The response is that this is not right, but that I rather take the two respective utterances of 'today' to be picking out Tuesday in virtue of their linguistic meaning. For I intend to re-express the belief I formed on Tuesday about Tuesday in spite of the fact that I come to be in epistemic contact with Wednesday.

same which has been argued to be the case with Rip. Recall also that, unlike keeping track of an object, keeping track of a certain day cannot by its nature involve a continuous experiential link with the day once it has passed (nor can the subject re-encounter it), so it needs to rely on the subject's memory of the day. In view of this, to think of **d** under the same mode of presentation from one occasion to the next and to retain the belief that it is (was) beautiful amounts to updating it by way of attributing to **d** various features, not all of which need to be true of it. The subject will typically associate with **d** predicates that (he thinks) are true of it. The property of *being the previous day* which amounts to the character of 'yesterday' belongs here too (though in Rip's case it does not pertain to **d**). Sometimes this may be the key property the subject associates with the day he thinks about (as when sleeping through it), in which case he may be said to be thinking of it under the character of 'yesterday'. (We have seen above that a similar thing occurs with the indexical 'tomorrow'.) In those cases in which the subject needs to resort to 'that day' in the role of a memory-based demonstrative that does not have a fixed character, in order to update his belief, his mode of presentation of **d** needs to include various supplementary features he associates with **d**. Since these features supplement the character it may be claimed that they are part of it which is alright as long as we take character so conceived to be part of the thought expressed, i.e. of the propositional content, and not something extraneous to it in the way character is to Russellian content within Kaplan's framework. All the features the subject takes to pertain to **d** and **d** alone (together with the fact that **d** is the sole causal source of the subject's belief) constitute a single mode of presentation of **d**. Sometimes, it is exhausted by the (fixed) character of the indexical used (as, for example, in the 'tomorrow' case), sometimes it is not.⁶

Modes of presentation in the present account play the role that Fregean modes of presentations are intended to play. To illustrate this, suppose the subject assents on **d** to 'Today is sunny'. Then, remembering (the weather on) **d** and keeping track of it by taking all the relevant information to have **d** as its single source, on a later occasion he assents to 'That day was warm'. From this he is entitled to validly infer 'Something is (was) sunny and warm'. In making such an inference, he presupposes the identity of the day designated by the utterances of the two indexicals. It would be useless to add this as a premise. Frege's notion of sense (as the mode of presentation) is designed for this very purpose: One gets to presuppose rather than assert identity when sense is the same and the inference may trade directly upon the fact of co-reference of two singular terms or of two different utterances of the same or different indexicals (see, e.g. Campbell 1987, 2002, Chap. 5). This ties in with Campbell's foregoing claim that if one does succeed in keeping track of an object

⁶ The emerging picture of persisting modes of presentation bears some resemblance to a number of views holding that having a singular thought of an object (in our case of a day) consists in creating a mental file about it by way of lumping together the information the subject garners about it (see, for example, Perry 1980, p. 84f.; 2001, p. 128f.; Recanati 2010). Mental files are taken to be a device for keeping track of when objects (days) are represented as the same. But, Fine (2007, p. 68) has urged that the workings of mental files ought to be understood in terms of representing objects (days) as the same, rather than the other way around, which makes the very notion of a mental file as a dossier of information stored in a single "location" spurious. As we saw, the modes of presentation of the present account are understood in terms of representing days as the same and are thus not subject to Fine's charge.

over time, then one must know immediately that it is the same thing that is in question (Campbell 1987, p. 285).

The broadly Fregean account of belief retention that has emerged is a natural consequence of accommodating the plausible view embraced by both Frege and Kaplan that belief retention requires an internal continuity in the subject's belief.

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