

Stage theory and proper names.¹

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Pablo Rychter – Universitat de València

pablo.rychter@uv.es

In the contemporary debate about the nature of persistence, *stage theory* is the view that ordinary objects (artefacts, animals, persons, etc.) are instantaneous and ‘persist’ by being suitably related to other instantaneous objects (see T. Sider 1996, 2001 and K. Hawley 2001, both defenders of the view). In this paper I focus on the issue of what stage theorists should say about the semantics of ordinary proper names, like ‘Socrates’ or ‘London’. This is how I will proceed: after discussing the general features of stage theory (section 1), I will consider the remarks that stage theorists actually make about the semantics of proper names (section 2). I will then point to some hitherto unnoticed problems for the view that emerges from those remarks (section 3), and finally offer an alternative view, which I take to be the best option available to stage theorists (section 4).

1. Stage theory: background assumptions and theoretical resources.

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Stage theory is usually presented under two broad ontological assumptions. The first is *eternalism*, the view that merely past and merely future objects are as real as present objects: Socrates and our future grandchildren exist in the same way as we do – temporal distance is no more ontologically significant than spatial distance. (Eternalism implies the rejection of *presentism*, the view that nothing exists which is not present). The second broad ontological assumption is *four-dimensionalism*, the thesis that, necessarily, every spatiotemporal object has a *temporal part* at each time at which it exists. Against this ontological background, the characteristic thesis of stage theory is that, among the many entities that populate our four-dimensional world, ordinary objects are best identified with instantaneous stages. In Sider’s own words, stage theory is the view that ‘the referents of ordinary terms, members of ordinary domains of quantification, subjects of ordinary predication, and so on’ are stages.² This view contrasts with *perdurantism* (also called ‘the worm view’), the alternative and more traditional four-dimensionalist view according to which ordinary objects are best identified with relatively long-lived sums of stages, i.e. ‘worms’. It is worth mentioning that stage and perdurantism may also be combined into different ‘mixed views’, on which ordinary speech is best interpreted as being sometimes about stages and sometimes about worms. It is one of these mixed views that Sider (2001) actually defends.³

Perdurantists and stage theorists disagree not only about what ordinary objects are but also about the proper analysis of temporal predication. Perdurantists typically favour an analysis of temporal predication in terms of temporal parts: roughly, x was F iff x has a

² Sider (2001), p. 60-61. Here and hereafter, by ‘stage’ I will mean instantaneous stage.

³ See Sider (2001), p. 197. I will come back to this feature of Sider’s view in section 4.4. Meanwhile, for ease of exposition I will disregard this complication and discuss Sider as if he were advocating a *pure* version of stage theory. This of course does not affect the arguments presented.

past temporal part that is *F simpliciter*. Stage theorists, on the other hand, generally adopt a counterpart-theoretic account according to which an object *x* was *F* iff *x* has a temporal counterpart in the past which is *F simpliciter*. The role that temporal counterparts play in this analysis is thus analogous to the role that modal counterparts play in the more familiar counterpart-theoretic analysis of modal claims. Just as happens in the modal case, there are different temporal counterpart relations that are relevant for evaluating different temporal claims. Most ordinary temporal claims are evaluated by using counterpart relations that are associated with the ‘persistence conditions’ of ordinary kinds of things. So for instance ‘this statue will be *F*’ will generally be evaluated using a counterpart relation associated with the persistence conditions of statues, whereas ‘this piece of clay will be *F*’ will be evaluated using a counterpart relation associated with the persistence conditions of pieces of clay. As a result, the stages related by most usual temporal counterpart relations are also causally related in different ways – unlike, of course, the case of modal counterparts. In fact, the counterpart relations invoked by the stage theorist in her evaluation of temporal claims are exactly the same as the ones that the perdurantist uses to single out those worms that are identified with ordinary objects: persons, statues, pieces of clay, etc. That is to say, the things that a stage theorist typically regards as counterparts of Socrates are just those things which the perdurantist regards as Socrates’ temporal parts.

It is worth emphasizing that stage theorists present their disagreement with perdurantists as being ‘merely semantic’ rather than ontological.⁴ They claim not to disagree about what objects there are in the world – only about which of those objects are properly identified with ordinary objects. It is for this reason that semantic considerations like those I will raise in this paper are highly relevant for a correct assessment of the view.

⁴ Although see Parsons (2004), p. 190 for an alternative take on this.

2. Sider's semantics for proper names: the qualified *present-stage* view.

We can now address the question of what stage theorists should say about the semantics of ordinary proper names. In this section, I will discuss what stage theorists actually say about this issue, focusing mostly on the presentation of Ted Sider (1996, 2001).⁵

On the account offered by Sider, ordinary proper names have two radically different roles. In some cases, which Sider calls ‘de re temporal predications’, proper names are used to single out a presently existing stage and express a singular proposition about it. In some other cases, they are used to express a ‘general proposition’ about what was or will be the case at some non-present time. This double role assigned to proper names – which I explain further below – is precisely the feature of the account that I find unappealing, for reasons that will soon become apparent.

Let us start by considering the first of the two uses attributed to ordinary names, that of *referring* to ordinary objects. This is, according to Sider, what ‘Obama’ does in present utterances of (1) and (2):

(1) Obama is president

⁵ In his unpublished paper “Beyond the Humphrey Objection”, Sider presents an alternative account of reference and predication that, although compatible with temporal counterpart theory, is arguably a departure from stage theory: on this view stages are not, by and large, the referents of ordinary names and the things quantified over in ordinary talk. I cannot undertake here an assessment of this alternative account and the reasons that motivate Sider’s introduction of it (which are in any case independent of the problems that I will raise). The positive view I present in the last part of this paper is intended to suit stage theory, i.e. the view that stages are the referents of ordinary terms, members of ordinary domains of quantification, and subjects of ordinary predication.

(2) Obama was a senator.

Sider's view is that in both (1) and (2), 'Obama' refers to a presently existing stage, of which (1) says that it is president, and (2) says that it *was* a senator. As explained above, the referent of 'Obama' can have this 'temporal property' in virtue of having a relevant counterpart in the past which is a senator simpliciter. This is how Sider himself makes the point:

The simplest case is a present tense assertion about a presently existing object, for example, 'Clinton is president'. One could take this sentence to express a so-called "singular proposition" about Clinton's present stage. Likewise for what I will call "*de re* temporal predications", which occur when we single out **a presently existing stage** and assert something about what *will* happen, or what *has* happened, to it. If I say "Clinton was once governor of Arkansas", we may take this as having subject-predicate form (the predicate is complex and involves a temporal operator); it expresses a singular proposition about Clinton, to the effect that he has the temporal property *previously being governor of Arkansas*.⁶

What I want to emphasize about this quotation is that it shows a certain bias towards the present: for Sider, utterances of *both* (1) *and* (2) should be understood as expressing singular propositions about a *presently existing* stage.⁷ That is to say, an utterance of (2) should *not* be understood as asserting something directly about a *past* stage. A past stage

⁶ Sider (1996), p. 449-450, emphasis added.

⁷ Here and elsewhere, by 'presently existing stage' I mean a stage existing at the time of utterance. Since utterances take more than one instant to be made, some idealization is needed in order to take instants as times of utterance. See Hawley (2001) p. 57 for a discussion of this issue.

may enter into the story of how (2) is true, but it does not do so in virtue of being the referent of ‘Obama’. The referent of ‘Obama’ in (2) is a present stage, just as it is in (1).

I will soon come back to this privileged status given to present stages as objects of reference, but before I do so I want to address a related issue. So far, we have seen that the referent of an utterance of ‘Obama’ is a stage that is present at the time of utterance. But which of the many stages that are then present is the one to which reference is being made? In other words, in virtue of which mechanisms does each utterance of ‘Obama’ refer to the particular stage that it does refer to? Sider’s account, following Kripke, is roughly as follows (see Sider 1996, p. 449): a name is introduced in an initial baptism. In normal cases, that baptism determines what the referent of the name will be at any later time: it will be the stage existing at that later time that bears the relevant counterpart relation to the originally baptized stage. The precise way in which the baptism determines future reference is captured by a certain *individual concept* associated with the name. A stage satisfies the individual concept associated to ‘Obama’, for instance, if and only if it bears the relevant counterpart relation to the stage originally baptized with the name ‘Obama’. Following Sider, we may call these stages ‘Obama-stages’. Now we are in a position to offer the following answer to the question posed above: among the many stages present at the time of utterance, ‘Obama’ will refer to the then *present* Obama-stage – i.e., the stage present at the time of utterance that bears the relevant counterpart relation to the stage originally baptized with the name. I will call this view the *present-stage view* (*PSV*, for short).

Sider’s individual concepts determine partial functions from times to stages such that each time t is assigned a stage that exists at t . Although Sider is not completely explicit

about the exact role of these functions in the semantic interpretation of names, it is natural to assimilate them to Kaplanian *characters* – i.e. to take them as functions from contexts to contents that capture the way in which the semantic value of a linguistic expression depends on the *context of utterance*.⁸ Thus, a name like ‘Obama’ turns out to be a context-dependent expression that ‘names’ different objects when uttered in different contexts. In this respect, ‘Obama’ works much like indexicals such as ‘here’, ‘now’, ‘I’, etc. Now, as we have seen above, on *PSV* present objects have a privileged status as objects of reference. Thus, the character associated with ‘Obama’ could be captured by something like the following semantic rule: an utterance of ‘Obama’ at *t* refers to the Obama-stage that is present at *t*.

PSV nicely explains how one and the same name can be used at different times to talk about the different stages existing at those times – an alleged fact about proper names that is also highlighted by Hawley (2001, p. 61-2). However, as Sider notes, *PSV* cannot be the whole truth about ordinary proper names, for two reasons. First, we have a problem with ‘merely past’ and ‘merely future’ objects. If proper names always refer to some present stage, what explains the truth of ‘Socrates was bent-shaped at t_1 ’? A second problem has to do with specificity intuitions: even if we could refer to past stages, it seems implausible to suppose that there is one distinguished stage which we are referring to when we say ‘Socrates was wise’. Intuitively, this sentence is not about one particular *instant* in Socrates’ lifespan but rather about *some past time or another*, including extended intervals. It is in order to solve these two problems that Sider moves from *PSV* to a qualified version of it. This qualification involves the idea that ordinary

⁸ However, unlike Kaplanian characters for indexicals, individual concepts are not supposed to be mastered by competent speakers. Thanks to an anonymous referee for pointing out this difference.

proper names play two radically different roles, as mentioned above: when proper names cannot be plausibly understood as referring to presently existing stages, they should be understood as making a different kind of contribution to the proposition expressed, which is a general proposition rather than a singular one. In Sider's terms, a problematic sentence like 'Socrates was wise' should not be understood as a '*de re* temporal predication' about a particular stage but rather as a *de dicto* temporal claim:

syntactically, the sentence should be taken as the result of applying a sentential operator 'WAS' to the sentence 'Socrates is wise'; the resulting sentence means that at some point in the past, there is a Socrates-stage that is wise (Sider, 1996, p. 450).

The *qualified PSV* is then the view that a proper name works semantically as *PSV* states, except when there is no present stage for the name to refer to, in which case the name must be taken as a predicate rather than as a genuine referring expression. This qualification helps to solve the two problems at hand, but it also has some highly unintuitive consequences on its own. In what follows, I discuss these consequences and present what I take to be the best alternative to *PSV* available to stage theorists.

3. A problem for the *qualified present-stage view*.

Here is what I take to be the main problem in the *qualified PSV*. The view is committed to giving a differential treatment to the sentences in each of the following pairs:

(3) Obama was bent-shaped at t_1 .

(4) Socrates was bent-shaped at t_2 .

(5) Obama was wise.

(6) Socrates was wise.

On the *qualified PSV*, the first sentence of each pair expresses a singular proposition about a particular person, whereas the second expresses a general proposition about what was the case. But this is suspicious. Notice that the alleged reason why ‘Socrates’ and ‘Obama’ make such radically different contributions to the propositions expressed by our present utterances of (3) and (4) is simply that, intuitively, Obama presently exists whereas Socrates has already died (or, as the stage theorist would put it: that there exists a present stage that satisfies the individual concept associated to ‘Obama’, but not a present stage that satisfies the concept associated to ‘Socrates’). But it seems implausible that this extra-linguistic difference could be responsible for the alleged difference in the nature of the proposition expressed. To dramatize this point, consider the following: on the view under consideration, it turns out that Socrates’ death is a landmark in time from which the propositions expressed by utterances of (4) and (6) automatically changed their structure. Before Socrates’ death, Plato was able to speak about ‘him’ using the name ‘Socrates’ in utterances of sentences just like (4) and (6). Those utterances expressed singular propositions of which the then-present Socrates-stage was a constituent. However, after Socrates’ death, Plato’s new utterances of (4) and (6) became unable to express those singular propositions. At that time, they could only express a general proposition to the effect that a certain property was instantiated in the past. But why should Socrates’ death have such a drastic effect on the propositions expressed by Plato’s different utterances? The reason cannot be that after Socrates’ death the Socrates-stages are no longer available as objects of reference. This is a motivation that *presentists* could have. But stage theorists typically favour

eternalism over presentism and therefore admit that the many Socrates-stages exist in the relevant sense after Socrates' death and are then available as objects of reference.

However, Sider's idea that utterances about past objects should be treated as *de dicto* rather than *de re* is inspired by Prior's presentist treatment of sentences seemingly about non-present objects. (Sider, 1996, p. 450). So it is useful to compare the consequences of Sider's account with how things look for presentists. According to presentism, there cannot be singular propositions about past objects for the very simple reason that there are no past objects. Thus, unless presentists are ready to reject singular propositions about present objects as well, they are also drawn to the conclusion that our present utterances of (3) and (4) express propositions of different kinds: whereas (3) expresses a singular proposition about Obama, (4) expresses a general proposition about how things were. I think this is a serious problem for presentists as well. But in the case of presentists, the problem is a seemingly unavoidable consequence of their proposed ontology. Not so for the stage theorist, who thinks that past stages exist as much as present stages do. There is no ontological reason why the stage theorist should follow the presentist lead in treating sentences as *de dicto* just because they concern past individuals. Sider's insistence that 'we clearly need the *de dicto* analysis for sentences concerning past individuals'⁹ does not square well with his assumption that eternalism is true: if non-present objects exist and belong to our ordinary domains of quantification, why cannot they also be the referents of ordinary terms and the constituents of singular propositions? The view that I will offer in the next section, unlike *PSV* and the qualified version of it, takes full advantage of eternalism in allowing proper names to have non-present referents.

⁹ Sider (1996, p. 451).

Let me clarify my complaint that an extra-linguistic fact like Socrates' death cannot affect the meaning of (4) and (6). I am assuming, like Sider in the relevant passages, that sentences express 'structured propositions' – the structure of which somehow reflects the kind of contribution made by each component of the sentence. What I find objectionable is *not* that changes in the world affect *which* proposition is expressed by a given sentence; it is an unremarkable fact, for instance, that which proposition is expressed by an utterance of 'Obama spoke an hour ago' is something that varies as a result of what time it is. But it would be surprising if the passage of time also affected the *structure* of the proposition expressed and the *kind* of contribution made by each expression in the sentence. It is this second type of variation that is required by Sider's (and the presentists') semantics for proper names.

4. The best alternative for stage theorists: the *baptized-stage view*.

In face of these difficulties, I suggest we reject the view that proper names play two different roles and, in particular, that 'Obama' and 'Socrates' work in completely different ways in our present (but not future!) utterances of (5) and (6). What to do? What we need is a uniform treatment of sentences (3)/(4) and (5)/(6), and we seem to have two obvious options before us: we could say that proper names *always* refer (allowing them to refer to past and future stages), or we could go the other way and say that proper names *never* refer and that they always make a contribution to a general proposition. This second option is *prima facie* unattractive for stage theorists, since it seems incompatible with the letter and spirit of their view. After all, stage theory is characterized by Sider as the view that stages are 'the referents of ordinary terms, members of ordinary domains of quantification, subjects of ordinary predication, and so on'. (Sider, 2001, p. 60-61). If we adopt the idea that 'Obama' is never used

referentially, we cannot maintain that stages are the referents of ordinary terms and subjects of ordinary predication. And, of course, the strategy under consideration is also incompatible with Sider's attractive account of '*de re* temporal predication', which in turn plays a crucial role in his arguments for preferring stage theory over perdurantism (see Sider 1996, p. 450-1). Therefore, I think stage theorists are better off taking the alternative option: uttered today, both 'Obama' and 'Socrates' refer, and both (5) and (6) express singular propositions.

In order to give this uniform treatment, *PSV* should be replaced by a view that allows proper names to refer to stages existing at times other than the time of utterance. My suggestion is that this should be done by preserving two orthodox views about proper names: first, the view that proper names are not context sensitive – that they refer to the same individual at each context of utterance – and second, that the referent of a name is the individual originally baptized with it. Putting these two pieces together in combination with stage theory, we get what I call the *baptized-stage view (BSV)*: the referent of a proper name is the stage originally baptized with it. On this view, 'Obama' refers to a 1961 baby-shaped stage – the stage originally baptized with the name. Surprisingly many things are true of this 'baby stage'. This is because the properties ascribed by ordinary predicates are more complex than one might have initially thought – an idea to which, as we shall see, the stage theorist is already and independently committed. So for instance, when we say things like 'In 2007 Obama was a senator from Illinois', we are saying *of the originally baptized stage* that it has the property of having been a senator from Illinois in 2007. This property turns out to be, on analysis, the property of being such as to have a temporal counterpart in 2007 which is, *simpliciter*, a senator from Illinois.¹⁰

¹⁰ An account like the one presented here is discussed but not endorsed by Moyer (2008). But

Before exploring the most problematic consequences of *BSV*, let me just mention some attractive features of it. First of all, it allows us to give a uniform treatment of pairs of sentences like (5) and (6): in both sentences, the function of the proper name is to contribute a particular individual about which a singular proposition is expressed. Second, *BSV* allows names to have merely past and merely future referents. This is a natural view for four-dimensionalists (and for non-presentists in general) to hold. As we have seen, there is no apparent reason in this theoretical context to restrict reference to present entities. Third, *BSV* is relatively non-revisionary with respect to the semantics of proper names: it preserves the two orthodox views mentioned above (names are not context-sensitive, a name refers to the thing originally baptized with it), and of course the ‘natural view’, as Donnellan calls it, that when using a name we are expressing a singular proposition about a particular entity rather than something general about the world.¹¹ In these three respects, *BSV* is an improvement on Sider's qualified *PSV*.

But in order to do its job satisfactorily, *BSV* has to be further developed and complemented with auxiliary views about properties and temporal predication. Also, some natural objections have to be addressed. This is what I intend to do now.

4.1 Temporal predication.

the reasons that motivate Moyer's discussion are different from mine, and so are his overall conclusions. As far as I can see, much of Moyer's dissatisfaction with the present account comes from rather general concerns about what he calls ‘Kripkean theories of reference’, and his preference for a descriptivist theory like Evans'. Although I am more optimistic than Moyer is about the general prospects of the Kripkean approach, this is not the place to engage in a general assessment of theories of reference. Instead, I will focus here on the specific problems that a non-descriptivist account faces when combined with stage theory, trying to show how these problems can be overcome.

¹¹ Donnellan (1974), p. 11.

The standard counterpart-theoretic account of temporal predication tells us that x was F iff the referent of ‘ x ’ has a counterpart in the past that is F simpliciter. So stated, this standard account is ambiguous, since ‘in the past’ may be understood in two different ways. The ambiguity is not problematic under the assumption of *PSV*, but it could be so if we adopt *BSV* instead. Given *BSV*, we should understand ‘in the past’ as meaning *the past relative to the time of utterance*, rather than the past relative to the time when the referent of ‘ x ’ exists. So my utterance today of ‘Obama was once a college student’ is true iff the baby-stage baptized ‘Obama’ has a college student counterpart at any time *before today* – not before the time of the baby-stage. On *PSV*, the time of utterance always coincides with the time where the referent exists, so this disambiguation is unnecessary.

Once the point is clarified, it does not represent any serious problem for *BSV*. It might seem at first sight odd that an object satisfies a past-tensed predicate (like ‘was once a college student’) in virtue of events that lie in the object’s future. But there is an explanation for this oddity: the past-directedness of the predicate flows from the speaker’s time, not from the time of the object satisfying the predicate.

4.2 Subject Matter.

A natural, immediate objection to *BSV* goes like this: isn’t it just implausible that when reporting the deeds and facts of Obama’s life the name ‘Obama’ always refers to the originally baptized, baby-shaped Obama-stage? Aren’t we talking about the adult Obama-stages when we say that Obama was a senator from Illinois? If so, it seems as if the referent of the name should be among these adult stages.

The objection is based on the thought that it *must* be the case that we sometimes refer to adult Obama-stages. I grant that this is a very appealing thought and that its rejection is a counter-intuitive consequence of *BSV*. But I want to make a couple of remarks that will make this consequence less unpalatable. My first remark is about what ‘counter-intuitive’ means here. Notice that the thought that we sometimes refer to the adult Obama-stages is not an intuition that *ordinary speakers* have. Their intuition is simply that we speak *about Obama*, and they express it in a language that makes no ‘explicit’ reference to stages – no reference to stages as such, be they adult-stages or baby-stages. So rejecting the thought that we sometimes refer to the adult Obama-stages is counter-intuitive only from the theoretician’s point of view.

But second, even if *BSV* rules out the adult Obama-stages as referents of ‘Obama’, these stages are not completely left out of the picture. On the contrary, they very often intervene in the story of why the things we say about Obama are true. That Obama was a senator, for instance, is true partly because an adult Obama-stage is a senator simpliciter. And I think this substitute role conferred to the adult Obama-stages alleviates some of the unease that we as theoreticians may feel about the thought that we never *refer* to them. In any case, let me emphasize that this ‘theoretically counter-intuitive’ consequence of *BSV* has to be weighed against *BSV*’s main theoretical benefits: the ability to treat each occurrence of ‘Obama’ as a genuine referential expression with an invariant meaning – something on which *PSV* and the modified *PSV* fail, for some reason or other.

4.3 Predicate meanings

A second immediate objection to *BSV* questions the plausibility of taking predicates to

have the apparently deviant meaning that they must have in order for them to be satisfied by the relevant stages. In order for ‘was a senator’ to be satisfied by a baby Obama-stage, the predicate must have a much more complex meaning than one might intuitively think, one involving complex relations with different stages. In reply, it should be noticed first that, in a way, the meaning of the predicate is not so complex: the predicate ‘was a senator’ still expresses the property of having been a senator, and the sentence ‘*x* was a senator’ is true if and only if the referent of ‘*x*’ has that property. What *is* more complex than one might have thought is the property of having been a senator, which on analysis turns out to be identical to the property of being such as to have a counterpart at a (contextually selected) past time that is a senator simpliciter. But more importantly, this kind of complexity is not unfamiliar for stage theorists. Stage theory is already committed to properties being more complex than naturally thought, in at least two respects. First, according to *PSV*, properties attributed by temporal predications, like the property *having been a senator*, already involve relations to temporal counterparts: *having been a senator* is a property that the present Obama-stage has in virtue of the relations it bears to its past counterparts. On *BSV*, on the other hand, the property is had by the *baptized* Obama-stage in virtue of the relations it bears to exactly the same counterparts. Thus, the difference between the two views is not on the complexity of the properties attributed. Second, stage theorists are committed to the view that even many properties attributed by ordinary present-tense predications, like ‘Obama drinks coffee’, are very complex relational properties. Drinking coffee, like most things people do, takes more than an instant. So if the property expressed by ‘drinks coffee’ is had by an instantaneous thing, as stage theorists propose, it must be a very relational property that the things in question have in virtue of being related to other instantaneous things in the appropriate ways (cf. Sider 2001 p 197-8). In sum,

given that stage theorists are already committed to the view that most properties attributed in ordinary speech are highly relational properties, the complexity that results from adopting *BSV* does not imply any extra cost.

4.4. *Baptism of non-present stages.*¹²

BSV tells us that the referent of a name is the stage originally baptized with that name. Thus, it is crucial for us to address the issue of what a baptism is, and what makes a given stage *the baptized stage*. By ‘baptism’ I mean the introduction of a name in the language, which typically involves some kind of ostension or description (or both). In many cases, as with ‘Obama’ and the other examples discussed so far, the object baptized exists at the time when the baptism takes place. In these cases, and leaving aside the fact that any baptism takes more than an instant, it is not especially problematic to determine what the baptized stage is: we may take it to be the stage *existing at the time of baptism* that satisfies the reference-fixing descriptions, or is the object of ostension. (The reason is that, in these cases, it is charitable to understand the baptizer as restricting the domain of quantification to what is present at the time of baptism). But we can also baptize things that are not present when the baptism takes place. To use Evans’ famous example, suppose that we introduce the name ‘Julius’ to designate whoever invented the zip. Since no present object satisfies this description (or so let us assume), we face in this case the question of determining the baptized. This question is especially hard because ‘the inventor of the zip’ is, according to stage theorists, an *improper* definite description. There are many things that satisfy the predicate ‘is the inventor of the zip’ – many stages, all of them in the past, that have the property of being the inventor of the zip.

¹² I am indebted to an anonymous referee for urging me to consider the problems discussed in this section.

Before presenting what I take to be the best answer to this question, I want to briefly consider an alternative answer. A friend of *BSV* may follow the lead of Sider (2001) and qualify her confidence in the unrestricted truth of stage theory in the first place. Indeed, it is problems with quantificational phrases of the sort ‘*the* inventor of the zip’ that leads Sider to adopt the mixed view according to which our ordinary domains of quantification are sometimes constituted by worms rather than by stages.¹³ A defender of *BSV* who shares with Sider this tolerance for ambiguities could therefore say that in those cases of baptism in which there is no *present* stage satisfying the reference-fixing definite descriptions, the thing baptized is a worm rather than a stage. This would be a completely natural view for someone who, for congruent reasons, is already committed to restricting the scope of stage theory, like Sider (2001). Nevertheless, it would be good to have a solution available to full-blown stage theorists – a solution that does not require this partial abandonment of their theory.

One such solution consists in taking the reference of ‘Julius’ as *indeterminate* in reference between the different inventors of the zip. That is to say, the friend of *BSV* is committed to the idea that the referent of ‘Julius’ is the stage baptized with that name – the stage that satisfies the reference-fixing definite description. But if there is no *one* single stage so baptized – no single inventor of the zip – he should conclude that the name *vaguely refers* to each of the inventors of the zip. Each of them has an equally good claim to be the thing baptized and therefore the referent of ‘Julius’. In particular, none of them is ruled out by considerations about the intentions that the baptizer had when introducing the name: whereas it is clear is that the baptizer intended to pick one single referent for ‘Julius’, there is no particular stage that she intended to pick among

¹³ See Sider (2001), p. 197.

the several suitable candidates. So we may conclude that she succeeded in introducing a proper name, although she did not succeed in giving it a determinate meaning.

Taking ‘Julius’ and the like as indeterminate in reference allows us to remain loyal to the idea that proper names always refer to stages: the function of a proper name is nothing but the contribution of a stage to a singular proposition – only that it is vague which stage exactly is the one contributed. It also allows us to keep the advantages of *BSV* mentioned above: the resulting view is non-revisionary in that it takes names as having an invariant reference, and does not require the postulation of a mysterious shift in the kind of contribution made by a name when its referent is no longer around. Moreover, indeterminacy in singular reference is an already familiar phenomenon, and one that can be treated with the standard supervaluationist tools. Consider the following example:

(7) Julius was smart.

According to *BSV*, (7) is true iff the referent of ‘Julius’ has a counterpart prior to the time of utterance that is smart simpliciter. Now, on the version of *BSV* that we are considering here, it is indeterminate what the referent of ‘Julius’ is. Every inventor of the zip is an acceptable candidate. But applying here the standard supervaluationist account, we obtain the following analysis: (7) is true iff every inventor of the zip has a counterpart prior to the time of utterance that is smart simpliciter. It is important to notice here that even if the supervaluationist analysis of (7) is captured by a general claim, we are still retaining the insight that the proposition expressed by (7) is a singular

proposition, and that the contribution of ‘Julius’ to this proposition is a single stage – only that it is indeterminate which one.

5. Conclusion.

My aim in this paper has been to present what I take to be the best picture about the semantics of proper names available to stage theorists. This is what I call the *baptized-stage view (BSV)*. I have argued that this view fares better than the *present-stage view*, and the *qualified present-stage view* defended by Sider. *BSV* has some surprising consequences: it implies that most proper names for humans refer to baby stages (4.2), and it implies that many proper names are indeterminate in reference (4.4.). But I have argued that these consequences are not as unpalatable as they may initially seem and that, in any case, they are outweighed by *BSV*’s main theoretical advantage: its ability, not matched by the competing views, to treat proper names as genuine referential expressions with an invariant meaning. Therefore, my central conclusion is that stage theorists are well advised to adopt *BSV*.

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