André Bazzoni

University of California, Berkeley

Names and individuals[1]

1. Introduction

What do proper names refer to? Do proper names have meaning?

These questions have revealed to be particularly elusive for philosophers and linguists working on the semantics of names,[2] but at least when it comes to the first question two broader theoretical currents have emerged and given rise to a robust literature, namely *referentialism*—the view that names are singular terms—, and *predicativism*—the view that names are predicates. I shall not, however, go into the specific discussion of which of those views provides the most adequate semantic analysis of proper names. The present paper is a referentialist paper, in the sense that first, only referentialist theories will be presented and dealt with, and second, a referentialist theory will be proposed as an alternative to the existing ones.[3]

This paper proceeds as follows. The main goal of section 2 is to assess the two major referentialist theories, *descriptivism* and the *direct-reference* or *causal theory*, in some of their most popular forms. Section 3 presents and develops an alternative approach, which I call *the cluster-occurrence theory* ('occurrence theory' for short). This theory draws on contemporary metaphysical ideas about the notions of individual and identity over time, and it aims at developing two suggestions advanced by Searle, namely that our understanding of the nature of an object involves two different cognitive operations; and that names are associated with

---

[2] I shall use the term 'name' as a short for 'proper name', unless otherwise specified.

[3] For predicativist theories, see Burge 1973 and Fara 2015.

Intentional contents. Finally, section 4 confronts some crucial aspects of descriptivism, the causal theory, and occurrence theory, and section 5 concludes and indicates some future lines of investigation in connection with occurrence theory.

2. Referentialist theories

The two dominant referentialist views on the semantics of proper names are *descriptivism* and the *direct-reference* or *causal theory*. The present section aims at presenting and assessing these theories, as well as identifying their respective weaknesses in providing a fully satisfactory account of the way in which names refer to individuals.

2.1. Descriptivism

Descriptivism goes back at least to Frege (1892) and Russell (1905) and is the view (aside from some specificities related to different versions) that a name is a kind of 'disguised' definite description. In other terms, names refer indirectly via their associated definite descriptions. For example, the name 'Paris' would refer to the city of Paris by virtue of its being associated with, say, the definite description 'the capital of France'. This idea was then refined by a theory called *cluster-descriptivism* often attributed to Searle (1958) and Strawson (1959)—but see below for Searle's reaction. Cluster-descriptivism proposes as the sense of a name an unrestricted number of definite descriptions (instead of a single one), some of which at least should be true of the referent of the name for it to refer to its referent. The name 'Paris' would then be associated with a list including, in addition to 'the capital of France', certain other definite descriptions such as 'the hometown of Mallarmé', 'the venue of EXPO 1900', and so forth. Searle's version is taken as identifying those disguised descriptions with the Fregean *sense* (*Sinn*) of proper names, whereas Russell (who rejected the sense/reference dichotomy) sees them as the real logical analysis of proper names—to Russell, therefore, descriptions operate on names at the level of logical forms, not at the semantic level of the analysis as in the cases of Frege and Searle.

As a matter of fact, descriptivism as it is typically understood cannot be unquestionably attributed to Frege, who offered in some respects but a vague conception of *Sinn*. It is the neo-

Fregean development of the notion of sense as *intension* (mainly through the works of Carnap 1947 and Church 1951) that is usually coped with the descriptivist thesis on proper names. Intension is defined as a function from possible worlds to extensions; that is to say, the intension of a proper name determines the extension of the name with respect to a given possible world. For instance, the intension of the name 'Hesperus'—which is identified with some (cluster of) description(s)—fixes the extension of the name in the actual world as being the planet Venus, but in some other possible world it could be some other object, say Halley's Comet. This would constitute the intensionalistic version of Frege's solution to his famous puzzle (cf. Frege 1892): what distinguishes the names 'Hesperus' and 'Phosphorus' semantically is not their extensions (with respect to the actual world), which are both Venus, but rather their intensions, which in fact return different extensions in some (non-actualized) possible world. We will have more to say on intension later on.

Briefly stated, descriptivism is then the view that names have intension in conjunction with extension (referent), and that those intensions are spelt out as definite descriptions.

In addition, descriptivists typically endorse more or less explicitly the idea that the description(s) associated with names may vary across different contexts. For example, historians tell that the city of Paris was already named 'Paris' when it became the capital of France. Thus before being the capital of France, the name 'Paris' could not have been correctly associated with the description 'the capital of France', whereas in our present context it can be so described, and in some future context it could well be the case that it cannot anymore. This type of context-sensitive descriptivism is confronted, however, to an immediate difficulty related to one of its most appealing features—that of trying to explain how names can have sense (as intension) and not only reference. Does the intension of a name vary across different contexts? If so, how do speakers come to assimilate such changes and go on applying the name correctly? In particular, if intension is meant to capture Frege's conception of *Sinn* as an objective notion, an explanation is required as to how objectivity is attained under context-sensitivity.

Descriptivism was famously attacked by Kripke (1980), who advanced a number of seemingly devastating arguments designed to show that no possible version of descriptivism could eventually qualify as an adequate semantic theory of proper names. Just to mention the most cited of those arguments, also known as the *modal argument*, names cannot possibly reduce to (any type of) descriptions because for any name N and any (cluster of) description(s) D, it can easily be shown that N and D have different 'modal profiles'. What this means is that even though N and D may refer to the same individual in the possible world

at issue, there still exists some other possible world in which they refer to different individuals. Thus for instance, if we consider a cluster D of descriptions associated with the name 'Paris', there is a possible world (as a matter of fact, infinitely many of them) in which the city of Paris fails to be the referent of *any* description in D—in that possible world, Paris is neither the capital of France (it could be the capital of Portugal), nor the hometown of Mallarmé (who could have been born in Bordeaux), nor the venue of EXPO 1900 (which could have been held in Madrid), and so forth indefinitely.

If accepted, the conclusion that no possible version of descriptivism can be correct seems to send us back to the basic question about the semantics of names: How is it possible to refer to an individual by its name? What feature of the name 'Paris' makes it possible for that name to refer to the city of Paris?

2.2. The causal (or direct-reference) theory

The causal theory is the modern version of an old idea, whose source is often traced in the literature to the work of Mill (1843)—another important reference being Marcus (1961).[4] This is the reason why the causal theory is frequently thought of as a revival and development of the view on proper names called *Millianism*, according to which proper names refer directly to individuals, with no intervening mechanism between names and their referents. This seems to commit oneself to the claim that names have no meaning, only reference, but causal theorists do not often address the 'problem of meaning' (i.e., of whether proper names have meaning and if so, what their meaning consists in). In that connection, Kripke goes as far as to emphasize that he does not take his own ideas as constituting any theory whatsoever—thus he would probably not call them 'the causal *theory*' as we are doing here (if only for terminological purposes)—but merely a "picture" of how names refer.

Millianism came to the front stage before descriptivism, and this seems to reflect a strong intuition to the effect that a name does appear to be a kind of meaningless 'tag' that is attached to some object to which the name is then used to refer directly, with no mediating conceptual mechanism involved in that referring process. There is no concept behind the name 'Paris', which simply refers directly to the city of Paris—this idea is suggested by the term *direct-reference theory*, which is also used as a more or less alternative label to 'causal

---

[4] We already find related ideas as early as in Plato's *Cratylus*—although that Platonic dialogue focuses on the conventionality of words in general.

theory'. Moreover, there are in general no lexical entries for names in dictionaries—when there are, they are encyclopedic rather than lexical entries, as in the cases of certain famous people, rivers, cities etc.

Interestingly, the revival of Millianism operated by the likes of Kripke (1980, originally 1972) and Donnellan (1972) may be seen as an extension of Russell's (1905, 1911) ideas on what he called 'logically proper names'. To Russell, logically proper names are associated with no concept, and their referents are presented to the speakers directly by *acquaintance*. One canonical example of a logical proper name is a demonstrative such as 'that', which picks out its referent in some context by directly presenting it, typically by ostension. Russell required that the speakers of the language be acquainted with the referent of 'that' in order for them to adequately use and understand the word, and the way in which speakers normally become acquainted with the referent of 'that' is through the *sense data* somehow connecting the object to the speakers (e.g. by visual stimuli). According to Russell, however, proper names in our sense, which he called 'ordinary proper names', cannot be classified as logically proper names, for the simple reason that we are able to adequately use and understand them without having to be acquainted with their referents. Thus for example, we are able to talk about Greek philosophers and yet there is no acquaintance via sense data involved in our understanding of utterances containing names of Greek philosophers. Therefore, ordinary proper names must be analyzed out in terms of other expressions in such a way that we may become (indirectly) acquainted with the referent of the name *via* the new expression. This new expression, as we know, is a definite description.

Now the revival of Russell's theory consists in doing away with his epistemology of sense data. It is then possible to directly refer to some object without being acquainted via sense data with that object. This would have the effect of enlarging the category of logically proper names so as to encompass ordinary proper names. Sense data are only one of the available media through which acquaintance is gained, while ordinary proper names are related to some other way of directly referring to objects in the world. An immediate question, and one to which we shall return later on, is how then speakers become acquainted (in this new non-Russellian sense) with the referents of ordinary proper names?

2.3. Internalism and externalism

A useful way of clarifying the dispute between descriptivism and the causal theory is in terms of the debate confronting semantic internalism and externalism. Going back to Frege's article (1892), the initial motivation for drawing a distinction between two levels of semantic values comes from what is known as Frege's *Identity Puzzle*. Specifically, Frege asks what the cognitive difference is between the expressions "a = a" and "a = b," where 'a' and 'b' are two constants, or names. We know his answer: 'a' and 'b' have the same referent, but are associated with different senses. The cognitive imports of names, to Frege's view, are thus encoded at the level of senses, and this is taken to be a type of *internalist* account of the semantics of names, in the sense that the *Sinn* of a name is intrinsically linked to the cognitive apparatus of the speakers.[5]

The causal theory, on the other hand, seems to side with the antagonist current of semantic *externalism*, according to which cognition, or speakers' 'internal' capacities, is not sufficient to determine reference—as Putnam (1975) famously stated it, " 'meanings' just ain't in the head." According to the causal theory, a name such as 'Aristotle' refers to Aristotle regardless of *any* qualitative description that might be associated, individually or collectively, with the name 'Aristotle'. Once the name is effectively ascribed to an individual through some kind of dubbing ceremony, or initial baptism,[6] facts about the external world are required to guarantee that an utterance of the name refers to its correct referent. In other words, regardless of which concepts any speaker may attribute to 'Aristotle', this name refers to the individual initially dubbed 'Aristotle'. I might just repeat some very general statement I heard about Aristotle, say, "Aristotle is great" without having any information at all about the individual Aristotle—suppose I am a high school student who hears the sentence from a teacher I very much admire, and then repeat it to my little brother at home—, yet the facts of the matter about the external world (e.g., the dubbing ceremony related to the name, the fact that some individual is identical to the individual named 'Aristotle' etc.) guarantee that the name will refer to the correct individual, i.e., to Aristotle.

3. The cluster-occurrence theory of proper names

---

[5] This is not to be confused with senses being subjective, or dependent on particular speakers. Frege was explicit in emphasizing that senses are objectively shared by the community of speakers of a language—see Frege's (1892) discussion about the distinction between the objectivity of sense and the subjectivity of a mere *image*.

[6] Obviously, neither 'ceremony' nor 'baptism' should be taken literally here, the important point being that the way in which a name is attributed to an individual is always via some sort of dubbing event by some communally accepted authority (e.g. the parents of a child, the owner of a pet etc.).

Having set the semantic background, I wish to introduce next a new kind of referentialist approach to proper names, which I will call the *cluster-occurrence theory,* or *occurrence theory* for short. As the label indicates, the view to be proposed in the following lines has some features in common with cluster-descriptivism. In particular, the occurrence theory is an internalist theory that attaches to names some Fregean sense of sorts, based on the notion of a (time-indexed) cluster of individual occurrences. On the other hand, it crucially departs from descriptivism in a way that makes it less apart from the causal theory that one might suppose at first. Specifically, the way in which proper names refer will turn out not to be one of an intrinsically qualitative or linguistic kind. Indeed, such a kind of linguistic analysis of the intension of proper names was an essential component of Kripke's attacks on descriptivism.

In his response to Kripke, Searle (1983, ch. 9) contends that descriptivism, as he understands that view, is by no means committed to descriptions as linguistic forms, and he gives instead a more neutral account of the sense of proper names on the basis of what he calls *Intentional* (with a 't') *content*. I am not entirely convinced that descriptivism is not in general associated with linguistic forms, given its systematic (and I would even dare to say, exclusive) recourse to definite descriptions, but I shall not engage in such a debate here.[7] In any event, the important point about Searle's response is that it does offer a more general internalist theory of names, be this a brand-new theory or just a clarification of implicit, inaccurate or unappreciated elements already stated by some standard versions of descriptivism. In Searle's construal of descriptivism, "what counts is not the fact that [descriptivists] give a *verbal* description, but that there is an Intentional content [associated with utterances of proper names]" (1983, p. 241; Searle's emphasis). The following may be seen as an attempt to expand on this idea of an Intentional content.

Rather than directly tackling the issue of how utterances of names succeed to refer to individuals, I shall begin by addressing the question of what an individual is in the first place. This means that we shall first work through an ontological and metaphysical stage, before proceeding to the further semantic step of explaining what the intension of a name is, and what kind of entity names refer to via their intension. As we will see next, that preliminary

---

[7] It does seem to me that the claim that Searle indeed never supported cluster-descriptivism is a fairly defensible and even plausible one, but we can avoid the debate by assuming for the sake of exposition that descriptivism is the view originated from Frege–Russell's ideas, and that cluster-descriptivism is then a reasonable development of descriptivism. I shall thus refer to Searle's own account by the term *Searle's late descriptivism*. In fact as we shall see, the views that I will advocate in the present paper may be largely seen as a development of Searle's late descriptivism.

ontological step may also be viewed as a development of another idea recurrently emphasized by Searle.

3.1. Individuation, identification and the causal theory

The basic ontological assumption in occurrence theory is that our inventory of objects, or in the logician's jargon our domain of quantification (or in still other terms, the universe of our model) is constituted by *individual occurrences*, not by individuals *simpliciter* as is presupposed by the standard analyses (i.e., possible-world semantics and derived systems).

As Searle remarked (1983, p. 259),

> What counts as an object and hence as a possible target for naming and referring is always determined relative to a system of representation. Given that we have a system rich enough to individuate objects (e.g., rich enough to count one horse, a second horse, a third horse…), and to identify and reidentify objects (e.g., rich enough to determine what must be the case if that is to be the *same horse* as the one we saw yesterday), we can then attach names to objects in such a way as to preserve the attachment of the same names to the same objects, even in counterfactual situations where the Intentional content associated with the name is no longer satisfied by the object.

There are two important points about this passage. First, Searle identifies two fundamental operations in the constitution of our notion of an individual. The standard possible-world semantics used by Kripke to support his ideas about identity and rigidity actually ignores (or just takes for granted) the second operation, i.e., the *identification* operation determining the sameness of two individuals previously singled out by the first operation of *individuation*.

In the specific case that interests us here, in connection with the causal theory, names are ascribed to previously *individuated* individuals (i.e., individuals that were singled out as such by the operation of individuation), and then the way in which the name is used post-baptism is settled by the causal chain (which is a chain that somehow links each further utterance of the name to that original one going back to the dubbing ceremony). We can see, therefore, that only individuation has some (implicit) role to play in the semantics of names,

via initial baptism—naming implying previous individuation. Sameness plays no role at all in the semantics of names: individuation is simply ignored by the standard model.

Contrastingly, a number of metaphysicians have been insisting on the importance of identification in the constitution of our notion of individual. Indeed, one of the central questions of contemporary metaphysics is how individuals persist through time. As it happens, this is an issue of identification, for the problem of identity over time may be stated as a problem of identification: given some individual i at time t, how do we identify i at $t+1$? what makes i the *same* individual at t and $t+1$?

Without *both* operations, it seems, we cannot in general[8] adequately account for the concept of an individual, at least as this concept is normally processed by human cognition. This is obvious in the case of individuation, for without this operation the notion an individual cannot even arise in the first place. But this is also true of identification; for without this operation we would not be able to see individuals as we actually do in general, that is, as temporally stable entities. With only individuation, we would see each individual as persisting for only a restricted period (or unit) of time; each time unit would entirely renovate the inventory of objects of the whole universe. There would be no room for the concept of the self to arise either, for I could not think of myself now as the same individual as myself five minutes, five seconds ago. Such a picture seems to describe an extremely rudimentary form of cognition, and at the very least not a human-like one.

Now the important point is that the notion of individual is absolutely crucial to the semantics of names. So stated this seems obvious, even trivial, since every semantic theory of proper names (in any case, every referentialist theory of proper names) takes it as a primary assumption. However, I am not merely affirming that *any* notion of individual is central to the semantics of names, but rather that the specific notion of individual *as construed by human cognition* is central to the semantics of names. This is the obvious, though not so trivial point that I shall attempt to argue for. It is not trivial because the causal theory, in disregarding the operation of identification, is an example of a theory that does *not* work with the required notion of individual.

3.2. Identification, externalism and the causal chain

---

[8] In the case of abstract entities such as numbers, which are typically immune to change, the issue of identification does not apply. But this is the 'easy' case, in which the intension of a name of an abstract object is its definition—e.g. the intension of the *numeral* '1' is the same as the intension of the definite description 'the successor of 0', which may serve as a definition of the natural *number* 1.

Since the causal theory is not equipped with a temporal notion of individual, time must crop up somewhere else, because for one thing, the most basic question that referentialist theories attempt to answer is perhaps how a name is able to refer to the individual it names even when its utterance is distant in space and time from that individual—the recognition of the fundamental role of time in the semantics of names is thus to a large extent an inescapable condition for any intelligible (referentialist) theory.

Indeed, the idea of a causal chain of communication is designed by the causal theorist to account for how names are passed from speaker to speaker through time (and space). To state it briefly and crudely, the causal theory comprises two essential components, namely initial baptism and the causal chain. Initial baptism accounts for individuation, while the causal chain accounts for identification.

There is a problem about the latter, though, as showed by Searle (1983, p. 244 ff.). We have seen that the causal theory is an externalist semantic theory, which means that successful reference is secured in the case of names by some *external* causal chain attaching an utterance of a name to its referent. Now if this external causal chain is what is meant by the causal chain of *communication*, then it would seem that the chain would be at least partly internal, for it would depend for example on the intentions of speakers to refer by that name to the same individual referred to by speakers earlier in the chain.[9] In other words, if it is a chain of communication that guarantees that some name refers to some individual, then reference to that individual depends on a feature of the speakers' minds.

On the other hand, externalist descriptions of the causal chain are pervasive among different versions of the causal theory, and particularly explicit in Donnellan's work, which mentions an "omniscient being who sees the whole history of the affair" (Donnellan 1972), or an "omniscient observer of history" (Donnellan 1974). Let us baptize such a being 'God'—only for the sake of further reference, with no pejorative connotation. The idea is that God, rather than the minds of the speakers, secures successful reference in the case of names. If I say, "Socrates was wise," what guarantees that I am referring to Socrates, whom I am not and cannot possibly be acquainted with (in Russell's sense), is not any feature of my mind enabling me to associate some cognitive (or in Searle's jargon, Intentional) content with the name 'Socrates'; what secures reference to Socrates is God, who is in a much more reliable

---

[9] Kripke (1980: 96): "When the name is 'passed from link to link', the receiver of the name must, I think, intend when he learns it to use it with the same reference as the man from whom he heard it. If I hear the name 'Napoleon' and decide it would be a nice name for my pet aardvark, I do not satisfy this condition."

position than me to carry out the association of the name with the individual whom was once named 'Socrates'. Thus even if I have a completely mistaken idea of Socrates, for example if I believe that Socrates was a French revolutionary who defeated Napoleon in Iraq, even in this case I would be referring to Socrates and saying about him that he was wise.

Searle then objects that from such an externalist perspective the causal chain of *communication* has no explanatory power whatsoever. His point is clear enough: if God is sufficient to secure reference, why do we need any communication, any speaker intention, anything whatever connected to the speakers' minds? Speakers are supposed to be mere vehicles for the utterances of names, while God does the job of associating those names with their respective referents. The communication chain and the external chain are completely different descriptions of the way in which names refer. In particular, the former offers an internalist causal explanation of how speakers learn to use a name, whereas the former simply lacks any explanation of successful reference, which falls under God's responsibility alone.

Suppose you tell me you saw Jane yesterday and I ask, "Who's Jane?" In asking this question, I am already using the name 'Jane', I am already referring to Jane, with no hint on what the referent of the name actually is. The causal chain has reached up to me, yet the name is semantically strange to me just as before I heard it for the first time. Could we then say that the name 'Jane' was thereby successfully communicated to me? If so, computer programming should probably count as well as communication between the programmer and the software: when you design a program, you transmit to the program instructions to manipulate syntactic symbols, and when your computer executes the program, it is realizing a new link in that 'communication' chain. Was it really communication that took place between you and your computer? I think not, but if one really insists in calling this kind of process 'communication', then one should at the very least make a distinction between syntactic and semantic communication, and then the point would be that the communication version of the causal chain is unable to convey semantic communication, which is arguably an essential component of any chain of linguistic propagation. The externalist version of the causal chain thus offers no explanation of successful linguistic transmission.

Moreover, the external chain does not qualify to such a task because the figure of God requires no temporal dimension, nor any operation of identification—God automatically sees everything with absolute clearness, hence any 'operation' whatsoever would be simply redundant. Suppose you tell about that same Jane, whom I completely ignore, that you saw her yesterday. Some external chain is then put in place in relation to the name 'Jane', and I eventually become able (i.e., I learn) to use the name 'Jane'. The question is: How did that

external chain work? What did this chain supply that I did not have before I was able to use the name 'Jane'? Surely, if I ask you who Jane is, and you say that she is your boss, I gain some information in terms of a definite description like 'the boss of X', and now I can say some things such as, "Jane is going to fire you if you don't finish your report," but that definite description, as the causal theorists correctly emphasize, cannot be all there is to the semantics of 'Jane'. The causal chain cannot be purely described as a transmission of certain qualitative information. But if the chain does not work in this way, it seems that what it passes on from speaker to speaker is just the name 'Jane' itself. If the process does not involve any conceptual gain, it seems that I am just like a robot starting to use the name 'Jane'. According to such a picture, we might begin using any name at random with the firm confidence that it will refer to its referent—obviously, we would say several false things about Jane, but the point is that we would still refer to the correct Jane. Since there is no link between our robotic utterance of 'Jane' and previous uses of the name, there is no possible account of identification in this purely external picture of the causal chain.

The dilemma is that the externalist chain is unable to account for identification, whereas the communication chain does account for identification but is fundamentally internalist—and we cannot have an externalist causal chain that is at the same time internalist.

The causal theory does not adequately account for identification, and since I have been claiming that no referentialist theory of proper names could be effective without accounting for *both* individuation and identification, it follows that under such a *desideratum* the causal theory is not an adequate semantic theory of proper names.

3.3. Individual occurrences

The reason why this is so may be alternatively stated as follows. Identification is already required at the level of baptism, and since initial baptism involves the basic ontological units of our referential system, the notion of individual as the basic target of reference must already incorporate the temporal dimension.

To make this point clearer, suppose we have no operation of identification at all. What would then be the purpose of giving a name to, say, a newborn baby? We call him 'Franz', but five minutes, five seconds later we have no idea of whom or what was named 'Franz'. Moreover, it is not that we just temporarily lost the capacity to reidentify; rather, this operation simply does not make any sense to us. Therefore, the act of naming itself would

make no sense either. We would not be able to refer to Socrates, nor to anything we are not acquainted with. We already need to grasp the notion of identification at the very act of naming.

As we have seen, identification is intimately related to persistence through time. The causal theory, on the other hand, introduced a temporal dimension only at the level of the causal chain. This was too late a move, however, for it missed the dubbing ceremony. The question is: What does it mean to say that we need to account for identification at the level of baptism?

This is where I shall undertake a different strategy as compared to the standard theories, including Searle's late descriptivism (i.e., the view stated in Searle 1983). I propose to resolve the problem of identification before proceeding to any investigation into the semantics of names. I thus propose an excursion into the metaphysics of persistence through time before coming back to the semantics of names.

A detailed exposition of all existing theories in the literature would fall beyond the scope of this article, but it would be helpful if we could at least unfold before us a large-scale map of the contemporary debate and pinpoint on it the specific place where I wish to situate our discussion.

There are two leading views on persistence through time, namely *endurance* and *perdurance* theories (cf. Lewis 1986, p. 202 for the introduction of the terms and discussion; Noonan and Curtis 2014, sec. 5, for a less sketchy overview of the theories; and Hawley 2001, ch. 1, for a more detailed presentation). The latter claims that individuals stretch out over time just as over space, and that individuals have temporal as well as spatial parts—this is the reason why this view is also known as *four-dimensionalism*. The former contends that individuals do not spread over time, that they are instead wholly present at each single instant, and that what persists through time is the entire individual. In light of our previous discussion on the importance of time in the constitution of the concept of individual, it will come as no surprise that the view on individuals that I wish to expand on here is a perdurantist one.

Perdurantism, however, also importantly splits into two main currents, namely *worm theory* and *stage theory*. According to the former, what persists through time is the entire individual made up from temporal parts, hence the analogy with a worm—but rather than thinking of the persisting worm as having different spatial sections, one should think of these sections as temporal ones. For example, the individual Barack Obama is strictly speaking not really the man that you saw on the TV screen on the occasion of his first speech as president of the United States, because what you really saw was a tiny part of the worm-Obama, that is,

of the whole individual Obama, who is constituted not only by that elegant gentleman on TV, but also by (*inter alia*) that little boy Barack as he pronounced his first unarticulated English words.

Stage theory, on the other hand, while acknowledging the essential role of time as to the notion of individual, departs from worm theory in claiming that what persists through time is the temporal parts of an individual, not the whole individual *qua* worm. To put it differently, worm theory states a whole-part relation between *continuants* (i.e., persisting things) and temporal parts, which by themselves are not continuants. Stage theory denies this aspect of worm theory, and claims that those temporal parts, which are called temporal *stages*, are continuants by themselves. As such, stages are wholly present (as individuals are in endurantist theories) and may be (and typically are) the objects of predication and quantification. Thus according to stage theorists when we say that Obama is elegant, it is a stage of Obama that is said to be elegant, not the worm-Obama.

To zoom in the map a little more, the notion of individual that I wish to work with in my account of the semantics of proper names is the one put forward by stage theorists. However, I shall not literally borrow the expression 'temporal stage' from them, but rather introduce the term 'individual occurrence' to refer to those temporal slices that perdurantists in general agree is an essential component of our conception of an individual.

The reason for the introduction of a new term is that it is unclear to me whether the way in which I construe occurrences matches exactly the way stage theorists conceive of their temporal stages—though I am rather convinced that both notions may be more or less easily accommodated so as to match each other.[10] For example, stages are standardly described as *instantaneous* entities, which means that one stage corresponds to one time instant—Sider (1996, 2000) only claims that stages are instantaneous without much specification about what is meant by an instant, whereas Hawley (2001, p. 51) favors the view of instants as points in a dense scale. But when we think or speak of a particular occurrence of an individual, that is, roughly speaking, of an appearance of an individual such as Obama, we do not have to set any specific duration to that occurrence. If I say that Socrates was wise, I certainly have in mind a particular occurrence of Socrates, not *any* random occurrence of Socrates (we would probably not attribute wisdom to Socrates as a newborn baby), but I am not necessarily speaking of any instantaneous occurrence of Socrates either (which strictly speaking is too fugitive for me to even think about). It is rather a kind of extended occurrence of Socrates (i.e., an occurrence

---

[10] In the same spirit, Hawley (2001, p. 50) writes that "the viability of stage theory does not depend upon the success of arguments about the finegrainedness of stages"—cf. the immediately following discussion.

over some interval of time) or perhaps more plausibly a representative occurrence of Socrates (i.e., some arbitrary occurrence representing all wise occurrences of Socrates, in the same sense that an arbitrary element of an equivalence class may be taken to represent the whole class[11]), that seems to be at issue.[12] The description that one might give of the duration of an occurrence does not actually matter, the crucial point being that we do rely on the notion of an occurrence as our basic ontological entity (which point is central to stage theorists in general), and that whatever the duration of an occurrence might be, the important feature is that occurrences are the units in our referential scale. We have no reason to suppose that our referential scale rigidly corresponds to the scale, say, of the real numbers—at any rate, this is a problem for the metaphysician of time.

Thus by working with individual occurrences, I am not advancing any significant metaphysical claim, but only adopting a conception as neutral as possible of stages. The methodological motivation for a neutral metaphysical basis is that the main points that I wish to advance are semantic in nature, not metaphysical.

3.4. Individuals and the cluster-occurrence theory of proper names

The semantic claims that I wish to put forward are thus the following, which together constitute the cluster-occurrence theory of proper names:

(1) Names refer to occurrences;
(2) Names have intension, and the intension of a name is an individual.

The first claim is a fairly immediate consequence of adopting stage theory as our favorite approach to persistence through time, and as such it comes as no surprise that (1) has already been proposed by stage theorists (cf. Sider 1996; Hawley 2001). I shall thus briefly state the point, and then focus on the second claim, and on the relationship between individual occurrences and what I will call 'individuals *simpliciter*'.

---

[11] More will be said below about equivalence classes of occurrences.
[12] I am sympathetic to Sider (1996)'s treatment of "Socrates is wise" in terms of *de dicto* temporal predication, though I tend to diverge from his account of *de re* temporal predication (and thus from his terminological dichotomy between *de dicto* and *de re* temporal predications). Such divergence will in fact manifest itself in my interpretations of the 'Obama-sentences' below, which are not carried out in terms of *de re* temporal predication—but I shall not discuss these issues in any detail here.

Names refer to occurrences. Given that occurrences are our basic ontological entity, and that according to referentialist theories names are singular terms, it naturally follows that names refer to occurrences. Thus for example in the sentence, "In 2009, Barack Obama pronounced his first words as president of the United States," the proper name 'Barack Obama' refers to a specific occurrence of Obama temporally situated in 2009. On the other hand in the sentence, "In 1963, Barack Obama pronounced his first English words," the name 'Barack Obama' refers to a different occurrence of Obama, namely to an occurrence of Obama as a little boy.

Let us now turn to the second claim. Occurrence (via stage) theory has to provide an explanation for the fact that those two different occurrences of Obama are related to each other in a rather special way: they are *both* occurrences of Obama. The way in which I shall put it is by saying that they are individual occurrences of the *same* individual *simpliciter*.

What is thus an individual *simpliciter*? Here again, the notion is not new, and in this case it is even more clearly (as compared to the variation stage/occurrence) a purely terminological variation adopted only for the sake of exposition. As a matter of fact, we have already encountered the notion of an individual (*simpliciter*; I shall henceforth drop this term) in our discussion above. An individual is simply a worm. But it is worth bearing in mind the difference between stage and worm theories: the former claims that the objects of predication and quantification are stages, whereas the latter ascribes that role to worms. Analogously to stage theory, I take an individual to be a *cluster* of individual occurrences (Sider 1996 talks about an aggregate of stages). This cluster is the product of a special equivalence relation over individual occurrences, which is known as the *I-relation* (cf. Lewis 1983, p. 58 ff.). An individual is then defined as an equivalence class induced by the I-relation (whatever the criteria of application associated with it). We say that two occurrences are *I-related* when they are occurrences of the same individual.

Proper names have intension, and the intension of a proper name is an individual. The concept of an individual is what determines reference to particular occurrences of that individual, and the I-relation, i.e., the relation that assures the cohesion of isolated occurrences to form an individual, is what makes it possible to refer to the *same* individual by its proper name—a related idea is briefly outlined in Sider (1996).[13] Once we have the concept of an individual, say, Barack Obama, we become able to refer to occurrences of

---

[13] As I have indicated above, most of my reluctance in equating my views with Sider's (or Hawley's) stems from the fact that we focus on distinct matters. He uses semantic examples to display the workings of his metaphysical views, whereas I use those metaphysical views to develop a semantic theory.

Barack Obama by using the name 'Barack Obama'. This answers the question that we asked above of what feature of the name 'Paris' makes it possible for that name to refer to the city of Paris: the name refers to an occurrence of that city by virtue of having that city as its intension.

The notion of sameness is in fact essential to the semantics of proper names, because without it the name 'gets stuck', it attaches to the first occurrence called by that name (via initial baptism), and fails to be transferred to further occurrences. Thus for example, without the I-relation, the name 'Barack' would have remained to this day 'imprisoned' in that little boy whom Obama's parents once called 'Barack'.

The intension of a name is an individual, and for any given time t (be it an instant, a sequence of instants, an interval, a duration: state you favorite description of time), there is a corresponding occurrence of that individual at t. This is a kind of Fregean treatment of proper names, and it fulfills Frege's requirement that intension (i.e., Frege's *Sinn*) must be an objective notion.

Furthermore, this picture of an individual *qua* intension may be presented in the usual mathematical way in terms of an intensional (typically partial) function i from times to occurrences, which for time t yields an occurrence $o_t = i(t)$ of i at t. There is, of course, a superficial difference with respect to the canonical treatments (e.g., Carnap's 1947 notion of 'individual concepts'), which takes a possible world instead of a time as the argument of the intensional function. This difference, however, is inessential, for we are merely assuming here that the possible world is fixed and that intension is indeed dependent on time—if one wishes to take possible worlds into account, it suffices to increment the intensional function i with a second argument, so that it would produce an occurrence $o_{t,w} = i(t,w)$ of i at time t and world w.

Proper names are normally ascribed to individuals, not to individual occurrences—we do name an occurrence, but only because the name is expected to 'spread out' over any occurrence of the relevant individual. Indeed, there would be not much usefulness in giving different names to different occurrences of the same individual, for those names would exhibit a kind of indexicality akin to the case of demonstratives. The function of proper names, it seems to me, is precisely to enable speakers to refer to an object regardless of any change that that object might undergo over time. Simply put, the main function of proper names is to track an individual over time.

4. Confronting the theories

Occurrence theory deals with Russell's acquaintance problem in a straightforward way. Speakers become acquainted with an individual in much the same way that they become acquainted with universals such as the property of being red. Indeed, names are passed from speaker to speaker through the famous causal chain of communication in much the same way as other predicates and ordinary functions.[14] This makes explicit the connection with Russell's strategy, but where Russell attaches a definite description to a name in order to make acquaintance with its referent possible, occurrence theory associates a name with a specific intensional function.

The main difference between names on the one hand, and predicates and ordinary functions on the other, is that only the former are associated with an operation of individuation. This helps explaining how names can have intension, while they seem at the same time to lie on the periphery of language: as opposed to ordinary parts of speech whose causal chains are continuously ongoing processes that cannot be affected by single speakers,[15] the causal chains associated with names crucially depend on a triggering event (namely initial baptism) to be put at work. Metaphorically speaking, the ordinary parts of speech keep hovering over the speakers continuously, whereas names demand a propulsion ignition system to take off and be put in orbit.

Occurrence theory contrasts with both descriptivism (including Searle's late version of it) and the causal theory in the following respect. These latter theories would say, each in its own way, that the name 'Barack' refers to the individual Barack, period. They do not distinguish between individuals and individual occurrences—both semantic accounts are metaphysically endurantist (despite the fact that Searle 1983 foresaw the importance of a more fine-grained metaphysical basis for semantic theories of names).

---

[14] This does not mean that occurrence theory is a predicativist theory. Given a time t, predicates refer to a set of objects satisfying the predicates at t, whereas names refer to a single object at t. The term 'cluster-occurrence' is only meant to convey the idea that the *intension* of a name is a set of time-indexed occurrences.

[15] I am for obvious reasons ignoring the fact that intensions may change over time following the natural evolution of languages. The argument operates within a synchronic description of the underlying language.

Certain descriptivists might object that the intensional function related to the name *N* may be paraphrased in terms of a specific definite description, namely 'the individual baptized *N*', which is a view that authors from both the referentialist and predicativist camps have in fact proposed.[16] So stated, I do not oppose to that paraphrase (for one thing because it is obviously true), with the further qualification that 'individual' must be understood semantically as a function—unlike the cases of the theories just mentioned—, not as an unanalyzed term.

We could even try a more accurate one: 'the set of occurrences that are I-related to the occurrence baptized *N*'. One should now, however, be aware of the fact that what is involved in this new paraphrase is not a 'genuine' definite description, in the sense that the description does not refer to a single *first-order* entity. In our current setup, indeed, the basic entities of our domain of quantification are individual occurrences, not *sets* of individual occurrences. As a consequence, it seems that for us to be able to analyze the paraphrase in terms of definite descriptions, we should have a means of uniquely identifying each occurrence in 'the set of occurrences that are I-related to the occurrence baptized *N*', most plausibly via some definite(s) description(s), which would then send us back to a kind of cluster-descriptivism. Descriptivism in general falls prey to specific descriptions because it finds no other means to identify occurrences, which is a consequence of the fact that metaphysically speaking descriptivism is an endurantist theory. In contrast, the cluster-occurrence theory avoids that trap by introducing occurrences at the ontological level of the theory, so that it does not have to state qualitative features of those entities in order to be able to identify them.

The anti-descriptivist could also relate the association of the name 'Jane' with the set of occurrences I-related to the occurrence initially called 'Jane' to a well-known criticism to metalinguistic theories of names. These theories, so the criticism goes, eventually seem to attach no content to names at all, since they circularly spell out that purported content in terms of the name itself. It would be as if we explained the predicate 'red' by stating that red is the color called 'red'. This does not seem to determine the extension of 'red' at any possible world, for it amounts to merely saying that 'red' is a color, which is indeed insufficient to determine which objects are red. Likewise, to explain the name 'Jane' as the individual called 'Jane' is to say that 'Jane' is the name of an individual, which is insufficient to fix the referent of 'Jane'.

---

[16] On the referentialist side, this view is known as *metalinguistic descriptivism*, and is supported among others by Bach (1981) and Geurts (1997). Fara (2015) develops a related (though non-metalinguistic) idea in connection with predicativism.

Another way of stating the criticism is by imagining again the situation in which I know no one by the name of 'Jane', and I ask you, "Who's Jane?" As I pointed out above, by the very act of asking this question I am already using the name 'Jane' and referring to Jane. Indeed, even though I ignore who Jane is, I do attach some conceptual content to that name— by using 'who' rather than 'what' I convey for example the facts that I believe that 'Jane' is a name of an object and not of a color, and that this object is a person (or maybe a pet) and not a business corporation. Contrast this with the question, "What's 'Jane'?" In this case, I am not using the name, but only mentioning it—no reference to Jane is achieved. I am now really doing something that I was not before (with the *who*-question): I am trying to attach some conceptual content to the name 'Jane' in order to be able to adequately use it. Moreover, the reply, " 'Jane' is the name of an individual" is certainly an informative answer (to the *what*-question), since it already enables me to use the name to say a few things such as, "I have an instinctive feeling that Jane is an honest person," or to ask the question that I asked before, "Who's Jane?"

This latter question is not the same as, "What's the meaning (sense) of 'Jane'?" Rather, it is a *request* of the kind, "Tell me about Jane." When you tell me about Jane, for instance that Jane is Smith's murderer, and the perpetrator of the first virtual crime in history, you are not thereby trying to convey what the meaning of 'Jane' is, but only to say some (true or false) facts about Jane. The same function is performed by indefinite descriptions, as when you answer my question by saying, "Jane is a friend of mine." This is the reason why definite and indefinite descriptions are equally insufficient as full concepts attached to the name 'Jane'.[17]

Therefore, it is certainly unfair to say that, " 'Jane' is an individual" is vacuous,[18] but it is also an overstatement to affirm that the sentence provides the intension associated with 'Jane', for it just says something (not all there is) about Jane.

According to occurrence theory, however, " 'Jane' refers to the individual called 'Jane' " (as an answer to the *what*-question) not only is not vacuous, but it is also rich enough a concept to uniquely determine the referent of 'Jane'. This is so because 'individual' is itself a

---

[17] Another well-known argument by Kripke against descriptivism uses a similar example ("Feynman is a famous physicist") to show that a name might be associated with an *indefinite* description, which is not an intension, and which is also insufficient for determining reference (cf. Kripke 1980, p. 91).

[18] Another illustration of this: if I tell you that 91P is big, and you ask, "What's '91P'?" you would not consider it trivial to hear from me that 91P is a comet. Moreover, you would most often be satisfied with that much of a clarification. The illusory triviality related to the case of 'Jane' comes from the fact that the name is commonly understood by default as a name of humans of the female gender—which is the reason why the *what*-question is immediately shifted to the *who*-question.

complex concept, unlike in metalinguistic theories. In these latter, the individual called 'Jane' is the object referred to by *any* utterance of that name. As a consequence, 'Jane' and 'the individual called 'Jane' ' are co-referential terms. This co-referentiality seems to explain why the formulation, " 'Jane' refers to the individual called 'Jane' " is understood as a variation of " 'Jane' is (the name of) an individual," thus failing to uniquely determine the referent of 'Jane'.

However, this is so only because the notion of individual is taken as unanalyzed by the standard metalinguistic theories. In occurrence theory, there is a mediating relation (i.e., the I-relation) that carries the conceptual idea of an occurrence being related to an original occurrence—where by 'original occurrence' I mean the occurrence to which the name was attached by initial baptism. As a consequence, 'Jane' and 'the individual called 'Jane' ' need not refer to the same referent, and as a matter of fact they typically do *not*. As stated in the context of occurrence theory, " 'Jane' refers to the individual called 'Jane' " relates, by the conceptual mediation of the I-relation, the referent of any occurrence of 'Jane' to the original occurrence of 'Jane'.

We can now also appreciate the reason why the communication chain put forward by causal theorists lacks explanatory power in the context of an externalist approach to the semantics of names. As we have seen, we already need the notion of identification at the level of baptism.[19] This means that at that level, identification as a general operation is already settled via I-relation. Once the causal chain is triggered through initial baptism, the I-relation takes care of the respective name; and as the term indicates, the I-relation is a relation, not a communication chain. At best, the communication chain provides a socio-linguistic explanation of how communication is possible in general, of why meaning is collective, and so forth. What is more, such kind of explanation is needed anyway regardless of what part of the speech is at issue—it is no special explanation specific to the case of names.

Another feature to notice about the causal theory is that it postulates that names are rigid designators, that is, they refer to the same individual in all possible worlds (in which that individual exists). In this way, Kripke's modal argument does not even apply—since names refer directly, there is nothing whose modal profile could be compared to the modal profile of a proper name. Nevertheless, in occurrence theory names do not refer directly, they refer in

---

[19] In this connection, we could paraphrase a dubbing event as follows: "The name *N* is to refer to any individual occurrence that is an occurrence of the *same* individual as *this* individual occurrence." The crucial role of sameness in that expression indicates that initial baptism could not be fully carried out in the absence of an underlying notion of identification.

virtue of having an individual as their intension. Therefore, Kripke's modal argument must be addressed in connection with occurrence theory.

What is the modal profile of an individual? Is it the same as that of the name associated with it by occurrence theory? It clearly is, because it would seem absurd to affirm that a certain occurrence of Nixon could have been an occurrence of an individual other than Nixon. This is analogous to Kripke's observation that "no one other than Nixon might have been Nixon" (1980, p. 48). Notice, however, that rigidity is essential to Kripke's argument. Without rigidity, indeed, it would be possible for 'Nixon' to refer to an individual other than Nixon in some possible world. But once we work in a perdurantist setup, we need no rigidity any longer. In fact, in occurrence theory names are *not* rigid, because they are indirectly governed by the I-relation; and the I-relation is a non-logical (equivalence) relation, which means that its extension varies across possible worlds.

In occurrence theory, we can consistently say that no occurrence of Obama (to come back to contemporary politics) might be an occurrence of another individual, *and* that an occurrence of Obama might not be an occurrence of Obama. The intuitive sense of the latter affirmation is that an actual occurrence of Obama could have satisfied different properties from the ones that it actually satisfies. For instance, the actual occurrence of Obama at the present time has the property of being president of the United States, but at the present time Obama could have been instead the concertmaster of the Chicago Symphony Orchestra. Clearly, these two possible occurrences belong to two different possible worlds (one actualized, the other non-actualized). This is consistent with the assertion that neither occurrence is a possible occurrence of an individual other than Obama—there are (among others) two possible present Obamas none of whom might be, say, a possible present Kripke.

5. Conclusion

The weaknesses of descriptivism and the causal theory seem to share a common source, which is the fact that both accounts are ontologically based on the metaphysical premises of endurantism. In this paper, I aimed at developing a theory of names, which I called 'the cluster-occurrence theory of proper names', that is on the contrary founded on the perdurantist assumption that individuals have temporal parts, thus taking into account the fundamental role of change and time in the constitution of the notion of individual.

In particular, occurrence theory bears on a type of perdurantist view known as 'stage theory', whose distinguishing assumption is the following. Individuals have temporal parts, and contrary to what worm theory claims, what persists through time is these temporal parts, or stages, not the whole individual *qua* worm. For the sake of neutrality with regard to the precise notion of temporal stage, I introduced the notion of individual occurrence. An individual *simpliciter* was then defined as any equivalence class of individual occurrences induced by the I-relation, which is the relation between individual occurrences of the same individual.

Back to the semantics of names, we have seen that occurrence theory is the view that (1), names refer to individual occurrences; and (2), the intension of a name is an individual. It was then shown that the usual formal representation of the notion of intension as a mathematical function applies easily to our definition of an individual, provided that we introduce an argument for times into the intensional function. In this way, an individual may be viewed as a (typically partial) function that for a given time returns an individual occurrence (of that individual) at that time.

Aspects of occurrence theory were then confronted to some of the most important features of descriptivism (including cluster-descriptivism and metalinguistic descriptivism) and the causal theory, such as the characteristic attribution of qualitative content to names by descriptivists, and the externalist nature of the causal chain postulated by causal theorists (as well as its conflictive relation to the communication version of that chain). In these respects, occurrence theory departs from those theories by postulating a 'non-qualitative' intension associated with names (in the sense that names refer to individual occurrences without picking out any particular qualitative property of those occurrences), in the context of an internalist and indirect approach to the issue of how names refer—names refer via their intension.

Other important matters in connection with occurrence theory could not, however, be treated in detail or at all within the bounds of this article and must be left for future work, among which we can cite Kripke's semantic and epistemic arguments against descriptivism, and Russell's puzzles about non-existence statements and (in relation to Frege's Identity Puzzle) propositional attitudes. A more in-depth investigation also remains to be carried out on the nature of individual occurrences and individuals *simpliciter*, especially regarding their interactions with modality and the debate internalism/externalism. It is my hope, however, that the curious readers, equipped with the theoretical basis of occurrence theory provided by

our discussion, will already be able to foresee the ways in which the theory should respond to the problems raised by such issues.

References

Bach, K. (1981). "What's in a name?". *Australasian Journal of Philosophy* 59: 371-86.

Burge, T. (1973). "Reference and proper names". *Journal of Philosophy* 70(14): 425-39.

Carnap, R. (1947). *Meaning and Necessity*. Chicago: University of Chicago Press.

Church, A. (1951). "A formulation of the logic of sense and denotation". In Henle, P., Kallen, M. and S. K. Langer (eds.). *Structure, Method, and Meaning*. New York: Liberal Arts Press.

Donnellan, K. (1972). "Proper names and identifying descriptions". In: Davidson, D. and G. Harman (eds.), *Semantics of Natural Language*. Dordrecht: D. Reidel. 356-79.

Donnellan, K. (1974). "Speaking of nothing". *The Philosophical Review*, 83(1): 3-31.

Evans, G. (1973). "A causal theory of names". *Proceedings of the Aristotelian Society* 47: 187-208.

Fara, D. G. (2015). "Names are predicates". *The Philosophical Review* 124(1): 59-117.

Frege, G. (1892). "On sense and reference". In Geach P. and M. Black (eds.), *Translations from the Philosophical Writings of Gottlob Frege*. 1952. Oxford: Blackwell. 56-79.

Geurts, B. (1997). "Good news about the description theory of names". *Journal of Semantics* 14: 319-48.

Hawley, K. (2001). *How Things Persist*. Oxford: Oxford University Press.

Kripke, S. (1980). *Naming and Necessity*. Cambridge, MA: Harvard University Press.

Lewis, D. (1983). "Survival and identity". In: D. Lewis, *Philosophical Papers*. Vol. 1. Oxford: Oxford University Press. 55-77.

Lewis, D. (1986). *On the Plurality of Worlds*. Oxford: Blackwell.

Marcus, R. B. (1961). "Modalities and intensional languages". *Synthese* 13(4): 303-322.

Mill, J. S. (1843). *A System of Logic*. London: J. W. Parker.

Noonan, H. and B. Curtis (Summer 2014 Edition). "Identity". In: Zalta, E. (ed.), *Stanford Encyclopedia of Philosophy*. http://plato.stanford.edu/archives/sum2014/entries/identity/

Putnam, H. (1975). "The meaning of 'meaning'". In: Gunderson, K. (ed.), *Language, Mind, and Knowledge*, *Minnesota Studies in the Philosophy of Science*. Vol. 7. Minneapolis, Minnesota: University of Minnesota Press. 131-93.

Russell, B. (1905). "On denoting". *Mind* 14(56): 479-493.

Russell, B. (1911). "Knowledge by acquaintance and knowledge by description". *Proceedings of the Aristotelian Society* 11: 108-28.

Searle, J. (1958). "Proper names". *Mind* 67(266): 166-73.

Searle, J. (1983). *Intentionality*. Cambridge: Cambridge University Press.

Sider, T, (1996). "All the world's a stage". *Australasian Journal of Philosophy* 74: 433-53.

Sider, T, (2000). "The stage view and temporary intrinsics". *Analysis* 60: 84-88.

Strawson, P. F. (1959). *Individuals*. London: Methuen.