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The *tao* of metaphysics: the epidemiology of names

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Abstract

We present a unified diagnosis of three well-known puzzles about proper names, based on a new view of the metaphysics of words and proper names in particular adumbrated by David Kaplan in "Words". Exploring the analogy of words and viruses, we sketch an account of words as *entia successiva*, highlighting the crucial phenomenon of linguistic coordination. Understanding the famous puzzles as coordination failures, we think, brings to the fore important issues in the metaphysical foundations of direct reference. Words, it turns out, can themselves play some of the roles modes of presentation have been called up for.

> POLONIUS: What do you read, my lord?
> HAMLET: Words, words, words.
> (*Hamlet*, act 2, scene 2)

> We accept the risk that words and ideas have wings we cannot clip and which carry them we know not where.
> (U.S: Ninth Circuit Court of Appeals, Winter vs. G.P. Putnams Sons, 1991)

Three Problems

1. The problem of representation: How is it that by focussing our gaze on "Large herds of Plateosaurus grassed the Plaine de Plainpalais 150 million years ago" we learn something about what happened here a long time ago?

2. The status of semantic facts: Is

"Sam" refers to Sam.

$$\text{(R)}$$

necessary or contingent? informative or trivial? Is reference an essential property of names? reference-to-Sam an essential property of "Sam"?

3. Ontological commitment: What is it? Is it preserved by paraphrase? explication? analysis?

A common solution?

Words are a distinct ontological category.
1. Words represent because of what they are.
2. Semantic facts are facts about the essences of words.
3. The question of ontological commitment splits into two problems: truthmaking and aboutness. Truthbearers have an ontological form, which determines and constrains their logical form. This ontological form is grounded in the essences of words.

What a metaphysics of words could do for us

It is ordinarily assumed that the representation question divides into two sub-questions:

  (i) how is it possible that the marks of chalk mean what they do?
  (ii) how is it possible that by understanding what they mean, we learn something about the distant past?

Once this sub-division is accepted, the notion of a proposition starts playing an (apparently) explanatory role:

  (i*) the marks of chalk express the proposition that p;
  (ii*) the proposition that p is true iff (or: in virtue of the fact that) large herds of Plateosaurus grassed the Plaine de Plainpalais 152 million years ago.

If we accept the sub-division, deflationism about truth becomes an attractive position: it becomes almost irresistably plausible to say that (ii*) holds just because the proposition in question is what it is. (i*), though it states a contingent fact about language, seems utterly trivial – all you need to see its truth is some competence of English. Our initial puzzlement thus evaporates into two trivialities and we wonder what made us think our question was interesting in the first place.

Just a little below the surface of the two trivialities lie two deep mysteries, which seem completely untractable if approached in these terms:

  (i) How is it possible that our activities as language-using intentional agents bestow mind-independent and abstract entities with powers of representation?
  (ii) How is it possible that relations of aboutness and of truthmaking hold between these abstract entities and things in the world?

I think the sub-division is a mistake and that we should cut the middle-man out. We just have words and things – but what kind of things are words?

Tokens and types

1. What are types?

The type, it is often said, is abstract, a 'form' of some kind, while the tokens are spatio-temporal particulars, consisting of chalk or ink or sound-waves, sufficiently demarcated from each other and their surroundings. But in what sense are types 'forms' of their tokens? Some authors take types to be geometrical patterns or shapes exhibited by their tokens, while others have taken them to be sets.

Some problems with the view that types are somehow built up from their tokens:

1. untokened types: are they all identical? are there enough of them?
2. possible tokens?
3. dependence: sets depend on their members, shapes on what has them, but tokens are individuated by their types.
4. generation: the most important fact about types, if there are any, is that they can be used to generate new tokens, both of their own and of new types; sets, sequences and shapes do not generate in this way what they are sequences and shapes of.
5. if types are abstract objects, how is it that we can pronounce, learn, manipulate and invent them?

2. What is the relation between tokens and their type?

Peirce (1932: §246) calls tokens "replicas" and "embodiments" of the type. But if tokens resemble their types, don't they do by sharing a super-type with them? Types are said to occur in their tokens (Wolterstorff 1970: 17). If it is the word type PHILIPP that occurs both in "Philipp" and in "Philipp" and if it is the letter type P what it is that has three occurrences in each of them, are we to say that P occurs trice in the *type* PHILIPP too? If it does not, then how do we distinguish PHILIPP from PHILIP (a very different word)? If it does, do not the three P in PHILIPP have something else, a super-type, in common, of which they are occurrences?

Types are also said to be represented by their tokens (Szabó 1999). "Zoltán" represents ZOLTÁN which in turn represents Zoltán. If all we manage to do by our linguistic acts is representing abstract types, then how do *they* acquire their representational properties?

3. What is the relation between tokens of the same type?

If *being of the same type* stands for *being tokens of the same word*, this relation is neither reflexive nor transitive. It is not reflexive because the same marks can be used to represent different words, and it is not transitive because any word can be related to any other by a Sorites series of small changes which are compatible with the 'adjacent' tokens being of the same type.

The identification of word types with geometrical patterns or graphical shapes imposes rather tight constraints on the resemblance between tokens required for their being of the same type, whereas we are willing to count rather dissimilar

inscriptions as tokens of the same word. As Kaplan (1990) and Bennett (1988) have argued, however, no degree of resemblance is necessary or sufficient for inscriptions and utterances being of the same word. "Sam", e.g. a name that can be pronounced very differently, not only by speakers of different languages, but by speakers having all kinds of speech deficiencies. Moreover, it is (a token of) a type of which we may produce several tokens during a conversation, while others might be written on the cover of a book. Words can be encoded in very different notational systems; while for each of these encodings a type/token distinction can be drawn, it seems doubtful how there could be types covering tthings so different as a mark on the black-board, which seems a substantial, a three-dimensional continuant in time, and the modulation of the air by my utterance, which is a process or event that has temporal parts.

In his article "Words", David Kaplan (1990) criticised the type/token model on roughly the grounds we mentioned. Instead, he proposed what he called the "common currency model", according to which words, and proper names in particular, are continuants, constituted by stages (inscriptions, utterances), in roughly the way different quantities of water constitute a river. Names are "natural objects", with a birth and a life that change in time and move in space while remaining single entities, just like a person changes in time, moves in space and can be, simultaneously or at different times, a member of different language communities.

Towards a metaphysics of words: Names as continuants

Names persist through links of coordination, that allow for some slack and give rise to Sorites-type paradoxes. These coordination links constitute a relation of genidentity among utterances and inscriptions: the word they are utterances and inscriptions of is nothing over and above the *ens successivum* made up by these stages. Genidentity is the existential relationship among the entia per se that grounds the persistence of the ens per alio.

Names are like viruses: they are natural objects, in space and time, which endure and move, spread and mutate while spreading. Individual viral cells stand to the virus itself in the same kind of exemplar/species relation than utterances to the words they are utterances of. Indeed, 'viruses' like HIV or smallpox are actually virus species. Viruses are transmitted by physical transactions, and so are words. They depend on their host cells for their existence, as words depend on their physical and mental 'embodiments'. It is in virtue of their multiplicative strategies that viruses travel and change; in the same way, utterances and inscriptions of a word give rise to other utterances and inscriptions of the same word. Thinking of words on the model of viruses help us focus on the most important features of their nature: their ways of reproduction and their muta-

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tional possibilities. Rather than asking under what conditions some name N refers to some individual X, a question that presupposes independent means of specifying the referent, we should look for necessary and sufficient conditions on human actions to be uses of the same name. Words, like biological viruses, are dependent entities: they depend for their existence on actions of language users, as biological viruses depend on living cells for their reproductive cycle. The clue to a metaphysics of words is their epidemiology.

Both words and biological viruses are (vertically) individuated not just by their reproductive process, but also (horizontally) by their ecological niche. Both components are present in the definition of a virus species proposed by van van Regenmortel (1990) and finally accepted, after years of controversy, by the International Committee on Taxonomy of Viruses in 1991: "A virus species is defined as a polythetic class of viruses that constitutes a replicating lineage and occupies a particular ecological niche". It is in terms of their 'niche', i.e. their function within a representational system, that we can account e.g. for the rigidity of names.

Inscriptions, utterances and memory traces of proper names are concrete objects (cultural artefacts), entia per se, and some of them are appropriately related in virtue of the one 'coming from' the other. At any particular time and place where and when the name exists, there is at least one physical item having semantic properties that 'does duty' for it. The name that we write twice on the blackboard, that both of us pronounce and that makes its way around the globe is an ens per alio, logically constructed from a vast number of concrete entities, the 'stages'. Every stage takes part in an application or an employment of the name that is its use at a time and in a context. Such employments are processes, typically actions, and as such characterised by the intentions of their principal agents. They may be – and typically are – spatially and temporally scattered; it is in virtue of relations holding among the concrete entities they involve that we are typically able to recognise them as re-employments *of* some previously used name.

Linguistic Coordination

Linguistic coordination is the relation between different linguistic actions that grounds the continuity of a name and makes the actions employments of the (genidentically) *same* name. The persistence of the name, and thus its identity, is based on this relation of genidentity and not on its referent or on its syntactical-lexical form: two inscriptions or utterances are genidentical not because of their having the same intrinsic properties and characteristics (or in virtue of being sufficiently similar with respect to them), but in virtue of their developing one from the other, in a genidentical series.

How is coordination achieved? This is a vast, and partly empirical question.

Some examples may however be useful. A first class of cases involves intentions of co-reference: two utterances are coordinated in this way if one of them essentially involves an intention to use some syntactical-lexical form, some sound pattern or some other physical item *in the same way*, whatever it is, as the salient physical item is used in the other. In typical cases when I am about to use a word, it already exists as a sequence of stages, ending in a particular stage – an intention of co-reference will then determine whether another stage is a stage of the same word or not.

Inferential dispositions of a speaker may also give evidence for coordination. Suppose that we observe two utterances of what we take to be proper names "*a*" and "*b*", followed of what we take to be predicates "*F*" and "*G*" respectively. If the speaker is disposed to infer from them that there is something that is both F and G, this may justify taking his utterances of "*a*" and "*b*" to be coordinated. Coordination, in its simplest form, is presupposed whenever we fuse two predications into one:

$$\frac{\begin{array}{c} Fa \\ Ga \end{array}}{(F \wedge G)\, a} \qquad\qquad (\mathbf{id} - \mathbf{a})$$

I will call an inference of the type $(\mathbf{id} - \mathbf{a})$ an "*inference trading on identities*" or "identity inference" for short. The conclusion of $(\mathbf{id} - \mathbf{a})$ is meant to rule out cases of 'conjunction introduction' where the proper name type is used ambiguously, as in

$$\frac{\begin{array}{c} \text{David Lewis is an American-born philosopher famous for his modal realism.} \\ \text{David Lewis is a Russian-born Canadian lawyer and politician.} \end{array}}{\text{David Lewis is both a philosopher and a politician}}$$
$$(\mathbf{id} - \mathrm{DL})$$

That names are individuated by coordination links among utterances is not really a new idea. In retrospective, it can be seen lurking behind much of what has been said in the last thirty-five years about the rigidity of proper names, i.e. the fact that they keep their reference constant across both actual and counterfactual circumstances. The question naturally arises how proper names can be bestowed with such an amazing capacity - and it seems a plausible idea that it is our use of them, and the intentions guiding that use, that make them keep their reference:

> "What kind of linkage can insure that a name keeps the same reference in all possible worlds? [...] On the one hand names and other genuine singular terms must keep their reference in order for quantification to make sense. On the other hand, history is full of examples of names that due to confusion have come to change their reference.

> It took me many years to notice something that should have struck me immediately: What I show in this dissertation [(Føllesdal 1961)] is not that names and other referring expressions keep their reference in all possible worlds, I show only the conditional statement that *if* quantification into modal (and other intensional) contexts shall make sense, *then* names and other referring expressions have to keep their reference.
>
> We have hence no guarantee that names keep their reference, we only know that *if* we get confused about reference, *then* we get confused about quantification. When we use a name, a pronoun or a quantificational variable, we signal that we intend to keep on referring to the same object, and we commit ourselves to do our best to keep track of it. [...] Constancy of reference is therefore not something which is guaranteed, but something we must strive for when we use singular terms. It is a norm that we are expected to live up to as language users." (Føllesdal 2004: xxviii-xxix)

Intentions of coreference are sometimes even built in the very definition of rigidity:

> "Kripke's point [...] was that *given* that, as a matter of fact,
>
> $$\text{Water is } H_2O \tag{2}$$
>
> [...] and given that (Kripke points out) speakers *intend* that the term 'water' shall refer to just those things that have the same lawful behavior and the same ultimate composition as various standard samples of actual water (i.e. speakers have such intentions even when talking about hypothetical cases or 'possible worlds'), it follows that (2) must be true in every possible world...[...] this 'metaphysical necessity' is explained by mundane chemistry and mundane facts about speakers' intentions to refer." (Putnam 1981: 46–47)
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> "Someone uses a substance term rigidly if, in talk of any counterfactual or hypothetical situation, she uses it to refer to whatever in that situation the same substance as the substance referred to by the term in the actual situation." (Putnam 1990: 57)
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> "...a name is initially bestowed on a thing specified by description, and on each subsequent occasion is used with the intention of continuing to refer to what it has been being used to refer to." (Burgess 1996: 20)

Coordination in both the temporal and the modal dimension is essential to our uses of proper names. It is *because* you are able to intend to refer to the same

thing I do, whatever it is, that you are able to pick up a name from me you have never heard before and use it to make true or false assertions about a thing you have perhaps never encountered or otherwise heard of. It is *because* you can intend to use a name in the same way for the description of both actual and counterfactual circumstances that you are able to ask of this very person whether she might have won the election.

Coordination also has important epistemological consequences. In normal cases, the intention to coordinate the reference of a use of a certain name with another of its uses is self-fulfilling: Coordinating my use of "Sam", e.g., with yours, I intend to refer by it to whatever is the referent of your utterance. My intention of co-reference is purely notional: it is not directed towards what *actually* is the referent of your utterance, but is an intention to refer by my utterance to *whatever* is referred to by yours. When I thus coordinate my use of a name with yours, I make an identity statement connecting those very uses of the names true.

To the extent my co-referring intention is transparent to me, the identity statement is not only true but a priori knowably so. This is why "Hesperus is Hesperus" and the like are, in normal – but not all! – uses, trivial. That uses of proper names can, and typically are, coordinated in this way is a general and unacknowledged presupposition of direct reference theories. It shows most clearly in discussions of Evans' famous Julius case (Evans 1979), generally used to illustrate the contingent a priori. It is in order to achieve coordination that the stipulation that Julius is to be a proper name for the person who invented the zip "we must add that the stipulation in question was made in each of the worlds [in the context set]" (Stalnaker 1999: 15).

I can only go wrong if I have a separate, and different, intention to use the name to refer to something independently given to me. It is only with respect to such uses that an identity statement linking my use with another one with which it shares its referent is informative. In these cases, however, my intention is not the purely notional intention to co-refer, to collaborate in whatever the naming practice of my language community is, but a referential intention, an intention to refer to some unique F. This referring, as opposed to a co-referring intention, may be unsuccessful if there is no or no unique F or, if successful, make me a deviant language user. I will count as deviant if the F, while it is available as a unique referent, is not the referent of the other uses I intend to align myself with.

Referential intentions play an important role in baptisms. In a referential use of a definite description to fix the reference of a proper name, the intention to co-refer links the newly introduced name with the referentially used description. In these cases, "N is the F" will normally be a priori, though the intention is

not self-fulfilling – if there is no unique F, the identity statement is not true. It is in such uses of names that another point of analogy between proper names and both biological and computer viruses becomes apparent: all three are just instructions, RNA/DNA, source code or instructions to get to the referent, packed in a protective envelope.

If we distinguish the different employments of a word, which are pieces of intentional behaviour in space and time, from its use which is a more comprehensive process and not itself intentional, we may *identify* names with their uses – there is nothing else to a name than its applications, their properties and the coordination relation holding between them: "Eine Bedeutung eines Wortes ist eine Art seiner Verwendung" (Wittgenstein 1969, §61), or rather a relation of coordination among some linguistic acts.

Semantic Coordination

Kit Fine (2007) has argued that it is only by recourse to a semantic relation he calls "coordination" that we are able to explain the difference between the semantic behaviour of the free variables x and y.[1] To account for the facts that

1. there is no cross-contextual difference in semantic role between the variables x and y;
2. there is a cross-contextual difference in semantic role between the pair of variables x, y and the pair x, x

we must, Fine (2007: 22) says, reject semantical intrinsicalism, the view that "the intrinsic semantic features of an expression, in contrast to its extrinsic semantic features, do not concern its semantic relationship to other expressions" and that "there can be no difference in intrinsic semantic relationship without a difference in intrinsic semantic feature". We should rather develop a relational semantics, which attributes semantic values not just to sequences of expressions but to *coordinated* sequences of expressions. Whether or not two expressions are coordinated is a matter of how they represent, i.e. of whether they represent an object as the same:

> "I would not wish to deny that the semantic relationship – of representing-the-same – might hold in virtue of a syntactic relationship – of the name being the same. It is, after all, a common occurrence that a semantic feature or relationship can hold in virtue of an underlying syntactic feature or relationship" (Fine 2007: 41)

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[1] Kaplan (1990: 95, fn. 6) formulated a similar idea in terms of a *syntactical* difference: "I have come to think that two sentences whose syntax – perhaps here I should say, whose *logical syntax* – differs as much as "$a = a$" differs from "$a = b$" should never be regarded as having the same semantic value (expressing the same proposition), regardless of the semantic values of the individual lexical items "a" and "b"."

This is the additional step I propose to take: two 'tokens' are coordinated iff they are 'tokens' of the same word. Coordination is identity.

But what about anaphora? Following Fiengo and May (2006: 14,52) we may distinguish between the lexicon (containing "names") and the syntax of a language (containing "expressions") and say that expressions have pronomial and non-pronomial 'tokens' (Fiengo and May 2006: 45)

How can coordination be identity if it is not transitive? The virus analogy may help.

"Syntax is transparent, even if semantics is not." (Fine 2007: 109) But we often take different people to be the same or think of one person that they are two. Pierre's mistake about Paderewski is matched by his mistake about "Paderewski".

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