

TOKENS, TYPES, AND NOMINALISM

RAMON M. LEMOS
University of Miami

In what follows I should like, by considering various aspects of the ontological status of words and sentences, to present certain considerations that occasion what seem to me to be difficulties for nominalism, as distinguished from conceptualism. We begin with sentences.

Sentences are either types or tokens. Considered as tokens, the following two sentences are two sentences. "The book is red." "The book is red." Considered as a type, only one sentence has been written. Thus two tokens of the same type have been written. But taken as a type, one sentence has been written twice. Tokens might but need not be sensible. The preceding two tokens are sensible, since they are visible. And if someone were to utter aloud a token of the same type it too would be sensible, since it would be audible. But tokens need not be sensible, since someone in thinking silently might use a sentence-token that has never been written or uttered, and such a token would be neither visible nor audible. Types, on the other hand, are never sensible and thus are never visible or audible. They are, however, thinkable. Thus I can think of the type-sentence "The book is red" as being distinguishable from any of its tokens. This I can do even though it be necessary that I think of or at least use some token of this type as I think of the type. Visible tokens, since they are visible, are spatial. Audible tokens too may be said to be spatial in the sense that they exist or occur at the places at which they are audible. Insensible tokens, however, are not spatial, although the person who uses them in silent thought is in space. Sensible tokens are also temporal, since they exist or occur in time. Insensible tokens are also temporal, at least in the sense that

their occurrence or use in acts of silent thinking, like such acts, is temporal. Types, on the other hand, are temporal or spatial only through their tokens. Thus the sentence-type "The book is red" did not exist before people spoke English and will no longer exist when no visible tokens of it any longer exist and when no one any longer utters an audible token of it or uses any of its insensible tokens in thinking silently. So long, however, as sensible tokens of it exist and people in thinking silently use its tokens it too may be said to exist. It may also be said to exist at those places at which its sensible tokens exist and at those places occupied by the people who in thinking silently use its tokens. It is in these senses that types exist spatially and temporally through their tokens. We may go further and say that if no sensible token of a possible type ever exists and if no one in thinking silently ever uses a token of that possible type, then neither does it exist.

This last, however, does not mean that types are nothing over and above their tokens and are reducible without remainder to the latter. Types are not identical with tokens, since types have properties tokens do not have and *vice versa*, and no two entities can be identical if one has some property the other does not have. A type, for example, has tokens, whereas no token or collection of tokens does. A token, that is, is a token of a type, but no token can be a token of another token. And although a token is a member of a collection or class of tokens of the same type, its relationship to the collection is that of a member to a class and not that of token to type, which means that the relationship of a collection of tokens of a certain type to the particular members of the collection is that of a class to its members and not that of a type to its tokens. A token, that is, is a member of the class of tokens of its type and not a token of that class, and a class of tokens of a certain type, although it has as its membership the tokens of that type, is not itself the type of which they are the tokens. A token, then, is a token of a type and a member of a class of tokens of the same type; and a class of tokens of a certain type, although it is a collection of

tokens of that type, is itself neither a token nor the type of token of which its members are the tokens. In addition, no type can be a token of an other type. Although a species of type can be a specific form of a more general type, this does not mean that a type is a token of a type. Thus although the species of declarative sentence-types is a specific form of the genus consisting of sentence-types, this does not mean that any given sentence-type is a token of any specific or generic sentence-type. Instead, the relationship of a type to the species of type of which it is a type is analogous to the relationship of a determinate species of color such as crimson to the generic color such as red of which it is a determinate species. Thus although tokens are particular instances of types and particular members of the class of tokens consisting of those instances, types are not particulars but instead are analogous to universals.

It will be helpful to press a bit further the analogy between types and tokens on the one hand and universals and their particular instances on the other. A particular instance of a universal is the type of particular it is because of the nature of the universal of which it is an instance. So also a token is the type of token it is because of the nature of the type of which it is a token. The token "The book is red" is a different particular from both the token "The book is red" and the token "The book is green". These three tokens are different particulars because they exist at different places and come into being at different times. But the first two tokens are the same in the type and differ in type from the third. This fact cannot be accounted for simply by appealing to the fact that they are three distinct particulars existing at different places and coming into being at different times, for in these respects the first and second tokens are as distinct as particulars from one another as the are from the third. It can instead be accounted for only by appealing to the fact that the first two tokens are tokens of the same type whereas the third is a token of a different type.

The first two are tokens of the same type because they are composed of tokens of the same four type-words appearing

in the same order, whereas in the third a token of a different type-word occurs as the last word-token. This means that two or more token-sentences can be tokens of the same type-sentence if and only if they are composed of tokens of the same type-word appearing in the same order. They are not composed of the same token-words. The token-words of one token-sentence are different tokens from those of another token-sentence. Nor can the difference between two type-sentences be explained by saying that their tokens are composed of different token-words, since two tokens of the same type-sentence are also composed of different token-words. Some reference to type-words is therefore necessary if we are to explain either (1) what makes two tokens of the same type-sentence tokens of the same type or (2) what makes two tokens of different type-sentences tokens of different types. This means that just as without tokens there could be no types, so also without types there could be no tokens. Neither is reducible to the other, and each is necessary to the being of the other.

Someone with nominalistic tendencies might, however, object that this conclusion is reached too quickly. It is important for someone with such proclivities, not only that such a conclusion not be reached too quickly, but also that it not be reached at all. Strictly speaking, the nominalist, as distinguished from the conceptualist, maintains that universals are names or words of a certain sort, whereas the conceptualist holds that they are concepts of a certain sort. This distinction is supported by the etymological consideration that the term "nominalism" was developed from the Latin term for "name". Both positions agree that there are no extra-mental universals and thus that all real extra-mental entities are particulars. We shall consider conceptualism later. Here we shall consider only the question of what the ontological status of names or words must be for the nominalist, given his contentions that only particulars exist and that universals are only names or words of a certain sort. Since he admits that names or words exist, consistency would seem to require that he maintain also that they, like all other existent entities, are particulars.

Thus for him universal names or words must be particulars of a certain sort, differing from singular words or names such as proper names by virtue of the fact that they, unlike the latter, represent, apply to, or can be predicated of a multiplicity of particulars. But if all names or words, regardless of whether they be universal or singular, are particulars, then types must be reducible to tokens, since types, unlike tokens, are not particulars.

It is hard, however, to see how a reduction of types to tokens can be accomplished. It would mean that all sentences and words are particulars. Thus the sentence "The book is red" would be one particular and the sentence "The book is red" would be another distinct particular. This, however, would conflict with the way in which we ordinarily think and speak, since ordinarily we should think and say that in the previous sentence one and the same sentence has been mentioned twice, not that two distinct sentences have been mentioned once each. Thus if the type/token distinction were in effect rejected by attempting to reduce types to tokens, we should be unable to use or mention the same sentence or word twice. We should, of course, be able to think of or refer to the same sentence or word twice, since we can think of or refer to the same particular twice. But we could not use or mention the same sentence twice in thinking of or referring to a sentence twice. Thus although I could think twice of the first mention of "The book is red" in the sentence above, I could not use or mention that sentence again, so that in the present sentence the occurrence of "The book is red" would be an occurrence of a distinct sentence from the first occurrence of "The book is red" in the sentence above. Although "The book is red" could be used in the present sentence to refer to and to mention the first occurrence of "The book is red" in the sentence above, "The book is red" as it occurs in the present sentence would be a different sentence from the sentence "The book is red" as it occurs in the sentence above. This would mean that the same sentence could not be used on one occasion and mentioned on another. Instead, one sentence, "The book is red", would be used to say something

about the book in question, whereas a different sentence, "The book is red", would be used to mention the first sentence. Although this does not mean that the use/mention distinction depends upon the type/ token distinction in such a way that it too would be eliminated if the latter were, it does mean that one and the same sentence could not be used twice, mentioned twice, or used on one occasion and mentioned on another.

Moreover, if the type/token distinction were eliminated so that in effect tokens alone and not types exist, the same word could not be spelled either in the same or in different ways on two occasions of its use or mention. Thus in the tokens of "The book is red" in the previous paragraph the word "red" would not be spelled in the same way each time it occurs. This is the case because if the type/token distinction were eliminated the same word would not occur several times; instead, we should have a number of different words, rather than tokens of the same typeword, all spelled in the same way. In addition, if the type/token distinction were eliminated the same word could not be spelled differently on two occasions of its use. Thus "color", spelled without the "u" in the American way, would be a different word from "colour", spelled with a "u" in the British way. Finally, eliminate the type/token distinction and it becomes impossible for the same word to be spelled correctly on one occasion of its use and incorrectly on another, since without type-words we should simply have one word spelled in one way and another spelled in another. Thus the inscription "committed" would not be a misspelled token of the type-word "committed" but would instead be a different word spelled in a different way from another distinct word "committed". It would also be a distinct word from another word, "commited", spelled in the same way.

In addition, if the type/token distinction were eliminated the same sentence could not be used on different occasions to express either the same or different ideas, judgments, or beliefs or to state either the same or different propositions or facts. Thus I could not use the same type-sentence, "The book is red", to make the same statement on two different

occasions about the same book but instead should be using two different sentences rather than two different tokens of the same type-sentence. Nor could the same word have two different meanings. Thus the same word "red" could not have two different meanings, as in "The book is red" and "Lenin was red", since the same word would not occur in these two sentences. If, that is, there are no type-words, then what would be tokens of the same type if there were type-words would instead be different words with different meanings rather than uses of the same type-word with different meanings. Again, eliminate type-words and what would be tokens of the same type if there were type-words become different words with the same meaning and thus synonyms. Thus "red" in "This book is red" and "red" in "That book is red", since they would be different words with the same meaning, would be synonyms. If, then, there were only tokens and no types the same word could not have different meanings and many words, even though we should not ordinarily think so, would be synonymous.

Further, if there were only tokens and no types, then what would be a token of a type if there were type-words would have to be assigned a meaning on what would be each occasion of its use if there were type-words. Since, that is, "red" in "This book is red" would be a different word from "red" in "That book is red" —indeed, since "red" in "The books is red" would be a different word from "red" in "The book is red"—it would be necessary to assign a meaning to "red" each time it is used. Otherwise it would have no meaning. To this the nominalist might respond that this would not in fact be necessary, on the ground that it would suffice to indicate that all words falling within the class of words sounded or spelled in a certain way are to be used in certain ways in certain contexts. Thus all words sounded and spelled as "red" is are to be used in certain ways in certain contexts, so that it is not necessary to assign a meaning to each such word as it is used. In certain contexts such words are to be used to refer to a color of a certain kind, in others to refer to a political persuasion of a certain sort. Thus instead of saying that a certain

meaning is assigned the type-word "red" that governs the use of tokens of this type, the nominalist could say that a certain meaning is assigned in advance to all words sounded or spelled as "red" is sounded or spelled, and instead of treating all such words as tokens of the same type he could treat them as different words having the same meaning and thus as being synonymous terms.

There seems, however, to be little to recommend such a way of describing the assignment of meaning to words. It would still conflict with the ways in which we ordinarily think and speak of words and their meanings and would not avoid the objections presented above. It would also, as presented, be incomplete if not inconsistent, taken as a nominalist account of the assignment of meanings to words. This is the case because it treats all words sounded and spelled as "red" as having the same meaning in certain contexts. Although each such word would be a distinct and different word, all would nonetheless have the same meaning. The meaning of each would therefore be common to all. It therefore would not itself be a particular but would instead be analogous to a universal or type, if indeed it would not in fact be a universal or type of a certain sort. Thus in eliminating type-words the nominalist would still be left with something that is not itself a particular, namely the meaning common to the words sounded or spelled in a certain way. To complete his nominalist program he would therefore need to show that there are no such common meanings. He would need to show, for example, that in the sentences "This triangle is isosceles" and "This triangle is isosceles" the words "triangle" and "triangle" do not, indeed cannot, have the same meaning. Although their meanings might be exactly alike, they cannot be the same; although, that is, the meaning of "triangle" in the first sentence mentioned in the previous sentence is three-sided closed plane rectilinear figure and the meaning of "triangle" in the second sentence mentioned is also three-sided closed plane rectilinear figure, the second meaning, although it might be exactly like the first, cannot be the same as the first in the sense of being identical with it. The nominalist, in short, must show that

although two words can have meanings that are exactly alike, they cannot have the same meaning. He must therefore show that if two words are synonymous their synonymy cannot consist in their having the same meaning but consists instead in their having different meanings that are exactly alike.

That this can be shown is, to say the least, very much to be doubted. To do so it would be necessary to present some reason for maintaining that although two words, or two tokens of the same type, can have meanings that are exactly alike, they cannot have the same meaning. If two particulars, such as two pennies, were exactly alike, some reason could be given for claiming that they are nonetheless two particulars rather than one, such as that one has a different spatio-temporal location than the other. Such a reason, however, cannot be given for saying that the meanings of two words or of two tokens of the same type, though exactly alike, are two meanings rather than the same meaning. The token of "triangle" occurring in the token-sentence "This triangle is isosceles" is a different particular from the token of "triangle" occurring in the token-sentence "This triangle is isosceles" because they have different spatial locations. But if these tokens have exactly similar meanings but not the same meaning, the difference between these meanings cannot consist in the fact that the meaning of one has a different spatio-temporal location from that of the other. Although the two tokens have different spatial locations their meanings do not, since the latter, as distinct from the tokens, are not located in space at all. But if the difference in the meanings of these two tokens does not consist in a difference in their spatio-temporal locations, in what does it consist? If we assume that the meaning of each token is three-sided closed plane rectilinear figure, how does the meaning of either, as distinguished from the token of which it is the meaning, differ from that of the other? I suggest that it does not differ in the least, which, of course, is what we have been assuming throughout. But if the meaning of the other, why claim that there are two meanings rather than one? Is not the nominalist, in his zeal not to multiply entities beyond necessity by reducing all categories

of entity to the category of the particular, himself guilty in this case of multiplying meanings beyond necessity, just as, in his zeal to dispense with types in favor of tokens, he is guilty of multiplying words and sentences beyond necessity?

As distinguished from the nominalist, the conceptualist admits the existence not only of universal or common names or terms but also the existence of universal mental entities such as concepts. The realist admits the existence of everything the existence of which is also admitted by the conceptualist, but goes further than the latter does by also admitting the existence of extra-mental universals, the existence of which the conceptualist denies. At first glance it might seem that the conceptualist is confronted with difficulties similar to those facing the nominalist. For it types and meanings are universals or at least analogous to universals, yet are not mental entities such as concepts, then are they not extra-mental universals or at least extra-mental entities analogous to universals? And if they are, then does not the realist alone, as distinguished from the conceptualist, escape the difficulties confronting the nominalist discussed above?

The answer to these questions turns upon what we mean by "mental" and "extra-mental". If we mean by "mental" only phenomena such as sensations, feelings, emotions, perceptions, judgments, beliefs, etc., then types and meanings are not mental, since they are not phenomena of these sorts. On the other hand, to say of an entity that it is extra-mental may mean that if it exists it does so independently of the existence or occurrence of mental phenomena such as those mentioned above and of mental acts of any kind. In this sense of the term, types and meanings are not extra-mental, since they would not exist if no mental acts occurred. Although they are neither mental acts nor mental phenomena of the sorts mentioned above, they nonetheless depend for their existence upon the occurrence of mental acts and in this sense are mental rather than extra-mental entities. As such, their existence may consistently be admitted by the conceptualist even though they be universals or analogous to universals rather than particulars, since he denies only the existence of

the extra-mental universals the existence of which the realist asserts. And to escape the difficulties confronting the nominalist canvassed above it is not necessary to assert the existence of extra-mental universals; instead, it is sufficient to recognize, as the conceptualist can consistently do, that types and meanings are not particulars. Thus if realism, as distinguished from conceptualism, is to be defended adequately, it must be shown that universals exist or have being independently of the existence or occurrence of any mental acts or phenomena of any sort. Although word-types and sentence-types are not concepts, their existence does depend upon the occurrence of mental acts and the possession of concepts, and for this reason they are not universals of the sort the existence or being of which the realist is interested in establishing even though they are not particulars.

As was mentioned above, tokens, as contrasted with types and meanings, are particulars, and visible and audible tokens are also sensible. Moreover, taken in abstraction from their meanings and the types of which they are tokens, sensible tokens would still be sensible. In order, however, for a sensible particular to be a token it is necessary not only that it be sensible but also that it be a token of a type. As was said above, without types there could be no tokens, just as without tokens there could be no types. Thus what makes a given sensible particular a token, and a token of the type it is, is the type of which it is the token. Considered completely in abstraction from the type of which it is a token, and thus completely in abstraction from its nature as a token, a given sensible particular might be, indeed usually if not always is, a physical entity and as such is extra-mental. But considered as a token it is not a physical entity and nothing more. Instead, considered as a token it is considered as a token of a type. As such, it cannot be extra-mental, since it acquires its status as a token only as a consequence of a mental act consisting ultimately of a decision to assign some meaning to sensible physical entities of a certain type. Without such a mental act or decision a sensible physical entity would remain only an extra-mental particular; but as a consequence of such an act

or decision it is transformed into something more than an extra-mental sensible physical particular —into a token of a certain type with a certain meaning.

Indeed, it is only as a consequence of such acts or decisions that what otherwise would be only a group of sensible physical particulars are transformed into and seen as a single particular. Thus considered completely in abstraction from its status as a token, “The book is red” is not a single particular but rather a group of four particulars, “The”, “book”, “is”, and “red”. What transforms these four distinct particulars into one particular is our treating or taking them as together constituting a token of the type-sentence “The book is red”. Unless we so treat or take them, they remain four distinct particulars, and if we no longer treat or take “The book is red” as a token of the type “The book is red” it dissolves into a group of four distinct particulars. This means that “The book is red”, like any other sentence-token consisting of more than one token-word, since it acquires its status as a distinct particular only through being treated or taken as a token of a type, and thus only as a consequence of a mental act, is not an extra-mental particular. It is only the distinct token-words constituting the token-sentence that are extra-mental particulars. Not even this, however, is strictly the case, since considerations analogous to those just advanced in connection with token-sentences apply also to token-words. Thus the printed word “red”, taken completely in abstraction from its status as a token of the type-word “red”, is not a single distinct particular but rather a group of three distinct particulars, “r”, “e”, and “d”. What transforms them into a single particular, “red”, is our treating or taking them as together constituting a token of the type-word “red”. It is therefore only token letters, not token-words, that are extra-mental particulars, since a collection of token-letters is transformed into a single distinct particular only through our treating or taking them as together constituting a token of a certain type, and thus only as a consequence of a mental act. Similar considerations apply even to certain token-letters, such as lower-case tokens of “i”. Taken completely in abstrac-

tion from its status as a token, "i" is not a single particular but two particulars, one of which is a dot. It is transformed into a single particular only through treating or taking it as a token of the type-letter "i".

But although some sensible tokens, taken completely in abstraction from their types and meanings and thus in abstraction from their status as tokens, would not be distinct particulars, others would be. Thus "red" as sounded would still be a distinct particular even when taken in such abstraction. Sounded token-sentences consisting of more than one word or syllable, however, would not be. What transforms the series of distinct particular sounds uttered when a token of "The book is red" is spoken into a single particular is our taking or intending such a series as a spoken token of the type-sentence "The book is red". For someone who utters or understands an utterance of a token of "The book is red" the spoken token is, or at least can be, taken as a single distinct particular. But when one does not understand a spoken language it is difficult if not impossible for him to determine which of the distinct particular sounds he hears constitute distinct particular spoken token-words and token-sentences and which do not. He will doubtless believe that certain groups of such distinct particulars constitute such tokens and that others do not, but which do and which do not he is unable to determine. It is because of this that he does not understand the language in question when spoken even though he can read it with some facility. The phenomenon described, regardless of whether one accepts the interpretation or account of it presented here, is doubtless familiar to those who hear a language spoken that as spoken they do not understand even though they be able to read it. Until they learn the language as spoken they are unable to determine which groups of distinct particular sounds constitute particular tokens of words and sentences and which do not.

If these latter considerations are acceptable, then tokens, like types and meanings, are not extra-mental, since they, like types and meanings, depend for their being or existence upon the occurrence of mental acts and the possession of concepts.

Although neither tokens nor types are concepts, the fact that they are not extra-mental is nonetheless compatible with conceptualism, provided that we construe the conceptualist as maintaining only that they are not extra-mental and not that they are concepts. Thus although the considerations advanced in this paper do seem to constitute difficulties for nominalism as opposed to conceptualism, they do not seem to occasion difficulties for conceptualism as opposed to realism. If so, then realism can be defended only by presenting considerations other than those presented above.

RESUMEN

En este trabajo se consideran diversos aspectos del *status* ontológico de las palabras y de las oraciones, aspectos que ocasionan problemas a una posición nominalista, mas no a una conceptualista. También se argumenta que incluso una posición realista tiene problemas que no afectan al conceptualismo.

La tesis central que se defiende es que la distinción *conceptual type-token* (tipo-especímen) libera al conceptualismo de los problemas mayores que aquejan al nominalismo, pues éste —por razones teóricas— no puede disponer de la misma.

La posición conceptualista que se defiende mantiene que tanto los tipos como los especímenes lingüísticos de los que aquí se trata, dependen, para existir, de una mente —de alguien que use un determinado lenguaje— que los piense, que les dé el ser. Esto, sin embargo, no implica que los tipos sean entidades meramente subjetivas; lo que se sostiene es que no habría tipos —y tampoco especímenes— si no hubiese ningún acto mental del que depende su existencia; pero, no obstante, los tipos *no* son actos mentales, ni tampoco entidades autónomas, con existencia independiente de cualquier acto mental.

Finalmente, cabe señalar la dependencia teórica que se da entre tipos y especímenes: los tipos y los especímenes son entidades ontológicamente distintas, pero se condicionan mutuamente; esto es, un espécimen no podría existir como tal sin que existiese el tipo del que *es* espécimen; por otra parte, tampoco puede sostenerse que haya tipos sin que existan especímenes correspondientes de los mismos.

[J. A. Robles]