Speaking and Signifying

WILLIAM CHARLTON

Abstract
After (1) a brief introduction I (2) compare accounts of what it is to say something I find in Plato, Frege and Grice, and I distinguish linguistic from practical meaning and words that signify things from 'syncategorematic' or 'grammatical' words. I then (3) argue that the relation between a signifying word and what it signifies must be understood in terms of two complementary acts, already recognised in antiquity, quantifying and predicating. Discussing quantification (4), I show how problems about universals can be avoided by accepting Aristotle's distinction between possible and actual existence. Discussing predication (5), I defend Aristotle's view that there are more forms of predication than one, and consider this issue in connection with non-mathematical discourse.

1.

Western philosophy is largely the creation of Plato and Aristotle; but it is a living creature that has changed over the centuries. Our society has been shaped by philosophy; theirs was unfamiliar with it, though it had an inflected language and a phonetic alphabet which provided an entry into philosophy that might not have occurred to thinkers in ancient China. Their concepts were not ours, their questions were not ours, historical events have brought fresh topics into prominence and new philosophical tools have been introduced. We inevitably read the ancients with those tools in our hands and our problems in our minds. Philosophy, however, is an art, not a science. Philosophers deceive themselves if they think their work is research that can extend human knowledge, at least about things like language, truth and existence. Monet painted trees differently from Constable, and Van Gogh painted them differently from Monet. We may prefer one treatment to another, but we do not say that one artist knew more about trees than another or gives truer pictures of them. Philosophers over the centuries have treated language differently and in what follows, I compare ideas about speaking and signifying I find in Plato and Aristotle with ideas current among philosophers today.

Modern philosophers of language (Wittgenstein and Grice were exceptions) mostly concentrate on indicative speech, on statements that are true or false, and place truth at the centre of their subject.

doi:10.1017/S0031819118000311 © The Royal Institute of Philosophy, 2019

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

They think of truth and falsehood as attaching primarily to propositions, which resemble objects of mathematics in being non-temporal, though they may contain references to times, and neither mental nor linguistic. Statements are thought to derive their truth or falsehood from the propositions they express, and belief and desire are called mental 'attitudes' to propositions.

Plato and Aristotle lacked our concept of a proposition. Aristotle's formal logic is one of terms, not propositions. They too, however, concentrated on statements, and Plato asked how it was possible to make statements that are false. Greek has the verbs *alêtheuein* and *pseudein*, which mean 'to speak truly' and 'to speak falsely'. I think that Plato and Aristotle were primarily interested in these two ways of speaking, in what it is to speak truly or falsely. For them, we might say, the use of the adverb 'truly' is prior to the use of the adjective 'true'. We use the adjective with object-clauses; we say 'It is true that snow is white', and philosophers have tried to base an account of truth of the fact that it is true that snow is white if and only if snow is white. I think this strategy did not occur to Plato or Aristotle because for them 'It is true that snow is white' is elliptical for 'It is *true to say* that snow is white.'

We use the verbs 'assert' and 'deny' in two ways. We speak of asserting or denying one thing of another – asserting of buttercups and denying of snowdrops that they are yellow – and we also use the verbs 'absolutely' and speak of asserting that buttercups are yellow and denying that snowdrops are. Our 'true' and 'false' have comparable uses, absolute and with 'of'. Plato and Aristotle do not have uses of 'true' and 'false' with 'of', but Aristotle has verbs, *kataphanai* and *apophanai*, for asserting and denying one thing *of* another, and a verb *apophainein* which like our 'declare' covers both asserting and denying. He also distinguishes two uses of 'to be' [*einai*], one with a complement, for being *something*, and one absolute, for being the case. So equipped he can explain speaking truly as asserting of a thing something it *is* or denying of it something it's *not*, and speaking falsely as asserting of a thing something it isn't or denying of it something it is. This is equivalent to explaining absolute truth and falsehood in terms of truth and falsehood of something. I attribute a similar strategy to Plato below.

Paolo Crivelli has argued that Aristotle thought truth attaches primarily neither to statements nor to propositions but to states of affairs. These resemble propositions in that their 'nature is neither mental nor linguistic',[1] but differ from propositions in being

[1] Paolo Crivelli, *Aristotle on Truth* (Cambridge: Cambridge University Press 2004), 3.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

temporal (they obtain and do not obtain at different times) and in that all are positive: there are negative propositions but no negative states of affairs. Crivelli's arguments are full and scholarly. Meeting them properly would need a book almost as long at his. Nevertheless, I am not convinced that Aristotle's ontology contains states of affairs in addition to the 'kinds of real thing' he lists in the *Metaphysics* and *Categories*, and I shall explain how he can avoid postulating such entities below.

2.

At the beginning of his *Categories*, 1a16-19, Aristotle says:

> Of things said, some are said by interweaving, others without interweaving. Examples of those said by interweaving are: man runs, man conquers; of those without interweaving, man, ox, runs, conquers.

He here uses two different concepts of saying, both intuitive. One is that of speaking, of saying *something*, the other that of *signifying* something, in the way a word can signify something or be a word *for* something, something that really exists or might exist.

These two pre-philosophical notions provide the basis for the notions of a language, a sentence and a word. A language is a system for saying things. It consists of rules of grammar and vocabulary. Rules of grammar lay down procedures for constructing sentences out of signifying elements. A sentence is a unit of speech, a whole constructing which is saying some one thing. It is something perceptible by hearing, sight or (thanks to Helen Keller) touch, and so are the elements out of which it is constructed. Grammatical rules, however, concern them not insofar as they have perceptible properties but insofar as they signify things. Grice[2] distinguished between natural and non-natural meaning, and a corresponding distinction may be drawn between natural and non-natural signs, between signs *of* something and signs *for* something. Lactation, according to Aristotle *Prior Analytics* 2 70a7-15, is a sign *of* carrying an unborn child. 'Pregnancy' is a sign (agreed by convention) *for* carrying an unborn child; it signifies that.

The primary elements out of which a sentence is constructed are signs each of which signifies some one thing, and is not itself constructed out of elements which are functioning themselves as such

[2] 'H.P. Grice, 'Meaning', *Philosophical Review* **66** (1957), 377–88.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

signs. 'Carpet' is not constructed out of a sign for a car and a sign for a pet. 'Heartbroken' is a sign for something and is constructed out of the signs 'heart' and 'break', but in the sentence 'I was heartbroken' they do not function as signs by themselves as they do in 'It broke my heart'. (Aristotle gives a Greek illustration at *De Interpretatione* 16a26.)

The notion of a primary sentence-element is the basis of our notion of a word for something, but our word 'word' covers items which are not words for anything. Grammar prescribes two ways of constructing sentences out of signs. One is to produce one or more signifying words in a certain order, and (in some languages) to inflect it or them. For example, the Latin verb *ire* signifies going, and you can say something, you can order me to go, by uttering it with inflections of number and person in a one-word sentence *i*, 'Go!' The other is to insert additional linguistic items which are not words for things. The sentence 'An animal is not a toy' is constructed out of 'animal' and 'toy', which are words for things, and 'an', 'is', 'not' and 'a' which are not. They are nevertheless English words, listed in dictionaries of the English language. Aristotle's equivalent for our 'word' is *phônê*, 'spoken word'. In his *Poetics* 1456b37-1457a10 words are divided into 'signifying' words [*sêmantikai*] and 'non-signifying' [*asêmoi*], and prepositions and conjunctions are classed as non-signifying. Medieval philosophers called these non-signifying words 'syncategorematic terms'. Ockham (*Summa Logica* 1:4) includes among them adjectives of quantity like 'all' and 'some' and says:

> strictly speaking they signify nothing [but] added to a categorematic (i.e. signifying) word they make it signify something or make it stand for [*supponere*] things in a certain way or perform some other function concerning it.

Non-signifying basic elements the use of which is prescribed in rules of grammar I shall call 'grammatical' words.

The vocabulary rules of a language give the meaning of all the words in it, but signifying and grammatical words have meaning in different ways. We give the meaning of signifying words by saying what they signify, and the meaning of grammatical words by giving the use specified in the grammatical rules for their use. They determine the form that using them gives to a speech and the way the signifying words in it are made to signify.

Lexicographers say what part of speech a word is but not whether it is signifying or grammatical; that is question for philosophers. Russell says:

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

> Suppose, for an instance, that I am in my room. I exist, and my room exists; but does 'in' exist? Yet obviously the word 'in' has a meaning; it denotes a relation which holds between me and my room.[3]

Aristotle and Ockham, as I said, class prepositions of place like 'in' as grammatical. 'In' is used with signifying words like 'room', 'market-place' (*Categories* 2a1-2) to give a speech the form of *saying where* something is, the form of an answer to 'Where is it?' I shall discuss other disagreements below.

Plato does not speak of signifying and non-signifying words, but at *Sophist* 253 he divides phonemes into vowels and consonants, and says that as vowels join together phonemes which have no sound by themselves and in doing do make them sound, so there are 'kinds' [*genê*] which play the role of vowels in relation to other kinds, enabling them to combine. I shall suggest below that his 'biggest kinds' correspond to grammatical words. His model of vowels and consonants may hinder readers from seeing this, because vowels sound by themselves, and consonants only with vowels, whereas grammatical words do not signify anything at all, and words like 'lion' and 'walk' do. Plato's thought, however, appears from *Sophist* 262 to be that these words for things which are the concern of zoology and physiology, and which like 'finger' can be defined ostensively (*Republic* 7: 523–5), do not signify anything except when combined with the aid of words like 'be', 'same' 'other' and 'like', which are the concern of philosophy [*dialektikê*].

The word in Aristotle I translate 'interweaving', *sumplokê*, comes from Plato. In *Sophist* 261e-262a Plato divides spoken sounds that 'show concerning being' into two kinds, which he calls *onomata* and *rhêmata*. These words are often translated 'nouns' and 'verbs', but our notions of a noun and a verb hardly date back beyond the first century classification of 'parts of speech' by Dionysius Thrax. Plato and Aristotle use o*noma* for any signifying word. They apply it not only to common nouns like 'lion' but to adjectives like 'white' (*Categories* 2a29-31) and infinitives of verbs for actions like 'to winnow' (*Sophist* 226*b*) and 'to thrive' (*Cratylus* 414a). The word *rhêma* is taken from a verb meaning 'to say, and signifies any kind of saying, a proverb, a *bon mot*, in Plato often a phrase. Neither a series of *onomata* alone nor one of *rhêmata* alone, he continues (262 b-d), is a speech [*logos*]. Neither

[3] *The Problems of Philosophy* (London: Oxford University Press, 1962), 90.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

> shows any doing or not doing, or any being of anything that is or is not, before the *rhêmata* are mixed [*kerasêi*] with the *onomata*. Then they fit together, and a speech arises, the first interweaving, the first and smallest of speeches; … [the speaker] achieves [*per-ainei*] something, weaving [*sumplekôn*] *rhêmata* onto *onomata*.

In *Statesman* 279–83 Plato gives a careful account of weaving. You stretch tight on a frame a number of hard warp threads, and you pass soft, flexible weft threads in and out between them. Greek has no indefinite article, so a Greek noun like 'lion' can be used by itself as a subject-expression. Greek has no continuous form of the present either, so a verb signifying an action like 'to walk' can be made into a predicate-phrase simply by giving it inflections of person and number. The examples Plato gives constitute Greek sentences equivalent to English sentences like 'A lion is walking' and 'Men learn'. In them he sets up a word for an animal as a subject-expression rather as a weaver fastens a warp thread to a frame and tightens it, and he constructs a predicate expression out of a word for something animals do by inflecting it to agree in person and number with the word used in the subject-expression, rather as the weaver passes a flexible weft thread round the fixed warp thread. C.J.F. Williams[4] follows A.N. Prior in using the expression 'wrap round', and apparently follows Plato in holding that to say something we must 'wrap' one linguistic item 'round' another.

Readers have misled by the anachronistic use in translations of the words 'noun' and 'verb' to wonder if Plato confused nouns and verbs with subject-expressions and predicate-expressions. In fact his use of the word *rhêma*, 'phrase', in place of *onoma* shows he distinguished predicate-expressions from words signifying things we predicate, and although he did not spell out the distinction, elusive to Greek speakers, between a word for something like 'lion' and a subject-expression, he says explicitly that a word like 'lion' does not actually signify 'the being of anything' unless used in a sentence.

Aristotle in *De Interpretatione* 16a19-b6 follows Plato in using *onoma* for signifying words and *rhêma* for predicate phrases. He says a *rhêma* 'signifies in addition time.' A verb does this only when it is inflected and made into a predicate expression. And at 16b19-22 he observes: 'Said by themselves *rhêmata* are *onomata* and signify something … but not yet whether something is or is not the case'; I think he here recognises that the verb used in a predicate expression, as it might be 'to run', is an *onoma*.

[4] *Being, Identity and Truth* (Oxford: Clarendon Press 1992), 13–14.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

I have dwelt on the question whether Plato and Aristotle confused words that signify things with expressions constructed out of them, because Frege not only identifies predicate expressions with items that signify but also, I think, with acts of signifying. He has a blanket notion of designating, standing for, and being a sign for something which he takes in 'Function and Concept' to be intuitively clear, and which he applies to proper names like 'Caesar', to phrases like 'the capital of the German empire', to predicate-expressions like 'is red', which stand, he thinks, for concepts, and to complete indicative sentences which stand for propositions or what he calls 'truth-values'.[5] He assimilates concepts to mathematical functions. These are conventionally expressed by formulae like $5x + 3$, but the variable letter x, Frege says, simply marks an empty place into which a sign designating a particular number can be put to form an expression designating the 'value' of the function for that particular number. The function itself, like the expression for it, is something incomplete, with an empty place. The 'value' of a mathematical function for a particular number is another number. The words 'The sum of (five times *two*) and three' form an expression for the number 13. Frege says that a predicate expression like 'is red' or 'conquered Gaul' is likewise an expression for a kind of function and has an empty place into which an expression designating an object can be inserted to form an expression for something; not for a number but for something true or false. Insert 'Caesar' into the space before 'conquered Gaul' and you get an expression for something true; insert 'Boadicea' and you get an expression for something false. Frege can then define a concept of something as 'a function whose value is always a truth-value' and an object as 'anything that is not a concept, so that the expression for it does not contain an empty place'. Frege thus represents indicative speaking, not as constructing an expression out of a word for one thing and modifying a word for another to match it, but as uttering an expression for something complete along with an expression for something incomplete to form an expression for a 'truth value'.

Frege's empty spaces are an illusion created by confusing predicate-expressions with the act of predicating. The words 'is red' no more contain an empty space than the words 'this rose', nor is a flexible weft thread any less complete than a hard warp thread. But the act of predicating, or of using the word for the colour in a predicate expression is something incomplete without the utterance of a subject

[5] G. Frege, *Translations* (eds) Peter Geach and Max Black, (Oxford: Basil Blackwell 1952), 30–2, 46.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

expression. It is that confusion which obliges him to say that though the words 'is a horse' designate the concept *horse*, 'the concept *horse* (sc. what the words 'the concept *horse*' designate) is not a concept, but frees him to dispense with Aristotle's distinction between things said by virtue of interweaving and things said without.

If Plato is right, the simplest speech must have grammatical structure. That has been questioned. Wittgenstein in *Philosophical Investigations* 1:2–6 imagines a '*whole* language' consisting of one-word orders. But if the persons who hear Wittgenstein's 'pillar', 'slab', etc., think simply that they will suffer something undesirable unless they bring a pillar or slab to a certain place, they need no more think the sounds are language than a yachtsman thinks changes in the wind are language when he thinks he will suffer something undesirable unless he tacks, takes in sail or moves the tiller. If the hearers think someone is making the sounds in order that they may *desire* to bring pillars and slabs, and is relying for success on their divining this purpose, they indeed interpret the sounds as speeches, orders to bring pillars and slabs. But could they think this, could they associate the sounds with pillars and slabs, unless they also thought the same sounds were sometimes made in order to implant a belief or a recognition that a pillar or slab is present? We have shouts of single words like 'woodcock' and 'dive' which we understand as questions, as statements or as orders according (as Aristotle noticed, *Poetics* 1457a21-2,) to the tone of voice; we differentiate them by a quality of sound like pitch or loudness. That is equivalent to grammatical structure. Explaining the meaning of a word by uttering it and pointing to something it signifies is a more sophisticated act than either a simple statement or a simple order, and probably presupposes understanding of both. Why do it if what the word signifies has no practical importance for acting or refraining? I have heard of no society in which children do not learn to interpret speeches as orders and as statements at the same time.

Plato in the *Sophist*, provides, I think, necessary and sufficient conditions for saying something not only in Greek but in any language whatever. Neither he nor Frege remarks that to speak we must not only perform certain linguistic acts or produce signs but do so for certain purposes. The machines that construct automated responses over the telephone do not actually speak. Grice in his paper 'Meaning' in effect repairs the omission. The meaning he analyses is meaning *to say* something, (in French, vouloir *dire*). We mean to say something, according to Grice, if we do something to affect someone's state of mind, especially if we do it to implant a belief or a desire, and we rely for success on the person's divining that purpose. This

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

theory is attractive. Though Grice does not make the point, some birds make sounds at the sight or sound of something threatening that have the effect of making other birds aware of the threat, and a dog will make a plaintive sound or scratch at a door in the presence of a human being in the hope that the human being will open the door. Such behaviour can be seen as a precursor to speech, though the dog will hardly distinguish between thinking its action will simply result in my opening the door and thinking its action will have this result because I realise it has acted for this purpose. Language proper requires this distinction.

Grice went on to distinguish between a speaker's meaning and the meaning of a speech. It is helpful here to distinguish between linguistic and practical meaning. The practical meaning of the speaker is what the speaker wishes to achieve by speaking; that may be as little as clarifying the speaker's own thoughts or filling an awkward silence. The speaker's linguistic meaning is what the speaker wishes to say. The linguistic meaning of a speech is what the speaker in fact says. What you in fact say is governed by the rules of the language you use, and may be different from what you mean or wish to say, especially if your grasp of the language is imperfect. Has a speech, as distinct from a speaker, a practical meaning as well as a linguistic? We could use the phrase 'the practical meaning of a speech' for its aptitude to affect the mind of anyone who grasps its linguistic meaning. That is what literary critics consider, and pretty much what Frege called 'tone' or 'colouring' [*Farbung*].

Speakers rely for achieving their practical purpose on their hearers' divining what that is, not just by any kind of guess-work, but (I do not know if Grice would have accepted this) by their knowledge of linguistic rules. It is too simple to say that their practical purpose is to implant or confirm a belief or desire. I may tell you to do something, knowing well that you will never want to do it, or say that something is the case knowing that you are counter-suggestible and wishing you to believe the opposite. My practical purpose is that the things signified by the words I use should enter you mind in ways determined by the grammar of my speech. If I say 'Jump into that pool' I want the action signified by 'jump' to enter into your thought as something good to do, whether you actually judge it good or bad; and if I say 'Your aunt jumped into that pool' I want the action to enter your thought as something that was done by your aunt, whether you actually think that she did it or that she didn't do it.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

At the beginning of the *De Interpretatione* (16a1-11) Aristotle says, referring to *onomata*, *rhêmata*, assertions, denials, declarations and speeches:

> those spoken are *sumbola* of affections in the soul, and those written of those spoken. And as the written ones are not the same for all people, so the spoken too are not the same. But the primary things of which these are signs [*sêmeia*], the affections in the soul, are the same for everyone, and the things [*pragmata*] of which these are likenesses [*homoiômata*], they too are the same… And as in the soul some thoughts [*noêmata*] do not involve truth or falsehood, while in others there must be one or the other, so it is in speech.

Aristotle was probably aware of the Roman and Egyptian alphabets as well as the Greek, and knew that different letters or characters can be used to write the same words. The word *sumbolon* was used for tokens, guarantees, attestations, pledges, earnests, and the 'affections in the soul' of which Aristotle says spoken items are *sumbola* are probably beliefs, desires and appearances in thought of things signified by the signifying words used. Spoken items are conventionally agreed pledges of these appearances, beliefs, and desires in the speaker, and, and the speaker wants the things signified by the words used at least to make similar appearances in the hearer's thinking.

3.

So much on what it is to speak. What is the relation between a signifying word and what it signifies?

In both Greek and Latin the same word *onoma*, *nomen*, is used both for a signifying word and for a proper name, and it is perhaps natural to suppose, with Hermogenes in Plato's *Cratylus* 383ff., that a word for something stands to it as a name for it, as something it is 'called'. The relationship, however, is not the same. Proper names have two uses. They are used to summon people and animals or at least to attract their attention. We do not use 'yellow' to make the colour it signifies come to us or even attend to us. And proper names are also used in speech to designate the individuals that bear them. Designating a thing, as distinct from giving it a name, is making it a logical subject of your speech, referring what you predicate to that thing. Words like 'elephant', 'swim', and 'yellow', though they are not names given to individuals, can be used to designate individuals in subject-expressions like 'your elephant', 'Leander's

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

swimming yesterday' 'the yellow in the carpet'. Using them like this we speak of what they signify as actually existing; in modern parlance we quantify over what they signify. But a name designates an individual by virtue of non-linguistic customs of a society. Perhaps 'Theaetetus' designates a man known to Plato because that man's parents bestowed that name upon him in compliance with some civil custom of their society. What we quantify over when we use a signifying word to designate is determined by the rules of the language to which it belongs. Though the point is not made either by the ancients or by Frege when in his *Letter to Jourdain* he applies his distinction between sense and reference to proper names, proper names are not words in a language.

The *De Interpretatione* passage I quoted just now has given rise to two questionable ideas about signification. The first is that what a signifying word primarily signifies is something in the mind, a psychological entity, which Locke (*Essay* 2.1.1.) calls an 'idea'. (Spoken words are taken to be signs *for* these entities, not signs *of* them.) The second is that signifying is a relation similar to that of a picture to what it depicts. These opinions are independent; indeed, if signifying is like depicting or representing, it is more plausible to say that words signify what is represented by the mental phenomena than the mental phenomena themselves.

It is true that if you were among people whose language you could not speak, to make them think you want to drink you might imitate someone drinking. As Socrates says, however, signifying generally cannot be explained in this way (*Cratylus* 431d-432), and the idea that words signify by resembling what they signify is satirised by Swift in his account of the professors of Lagado who thought, 'since words are only names for things, it would be more convenient for all men to carry about them such *things* as were necessary to express the particular business they were to discourse on'. Certainly a real elephant resembles what the word 'elephant' signifies more than a picture does. Today we may think signifying is a kind of representing because we speak of whole statements as true or false pictures of reality. But no picture is true or false. What is true or false, as Plato recognises (*Cratylus* 430e-431a), is a statement that a picture depicts or resembles something. Socrates allows that saying 'You are a man' is like saying 'This word "man" is your *onoma*'. At 433d, however, he says that an *onoma* is a something that 'shows' something, a *dêlôma* of it, not (as Jowett translated) a representation of it. Being told that saying 'You are a man' is like saying 'This word "man" is a word for you' does not tell us what it is for a word to be a word for

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

something. For Plato's opinion on that we have to look at *Sophist* 261-2 where he returns to *dêlômata*.

Porphyry at the beginning of his *Introduction to Aristotle's Categories* (1a8-12) says of genera and species, which he takes to be things signified by signifying words, that he 'will not discuss whether they exist [sc. in reality] or exist only in bare thoughts, nor whether they are existing bodies or incorporeal, nor whether they are separate or *in* things we perceive' since these questions are 'too deep' for people beginning logic. Medieval logicians thought nothing too deep for them. They asked whether common nouns signify individuals or genera and species. Since we want to apply them to more individuals than one, they ought to signify genera and species, but how is that possible if all that exists is individual? Abelard says of 'man' that its 'very community of application prevents any one man from being understood in it'; nor can 'the whole collection of men' be understood in it; 'consequently "man" or any other universal word seems to signify no one thing', but 'there cannot be a meaning which does not have a subject thing which it conceives'.[6]

Ockham distinguished between signification [*significatio*] and standing for something [*suppositio*] (*Summa Logicae* 1.1; 1.63). A word has *significatio* when sitting in the dictionary; it has *suppositio* only when used in speech. It is useful to distinguish between the words we use in speaking and our use of them. But the words we use do not signify anything independently of being used, and they are in fact used in two ways, to predicate and to express existence, or as we now say, to quantify. To know what a word signifies, it seems to follow, is to know what we predicate when we use it to predicate, and what we quantify when we use it to quantify. That, at least, is what we want to know if we want to know what it means.

Every signifying word, and not only nouns like 'lion', can be used in these two ways. 'Red' is used to predicate in 'That rose is red'; it is used to quantify in 'There is too much red in that carpet.' 'Swim is used to predicate in 'Leander is swimming the Hellespont' and to quantify in 'There is a lot of swimming in the Hellespont today – many swimmers swimming for long periods.' The difficulties about universals which were encountered by Plato and Aristotle as well as by medieval philosophers arise from the difference between these two linguistic acts, and the fact that what we predicate when we use a word to predicate is not quite the same as what we quantify

[6] *Selections from Medieval Philosophers*, Vol. 1, tr. Richard McKeon (New York: Scribners, 1957), 236.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

when we use it to quantify. What we predicate is, in general, something possible – possible for a plurality of subjects – whereas what we quantify is in the first instance something actual, though we can also quantify possibilities. That is why I said that signifying words are words for things that do or might exist. What a word signifies, is not one thing but two. Given, however, that using a word to signify is using it to predicate or quantify, what it is to signify something must be explained in terms, not of naming or resemblance, but of these two linguistic acts.

4.

To quantify things signified by count nouns is to say how many of them there are; to quantify things signified by mass nouns is to say how much of them there is. Today in public debates people demand that consequences of existing or proposed arrangements should be quantified. Aristotle had a word for predicating [*katêgorein*] but neither he nor Plato had a word for quantifying. Perhaps that was because the Greek interrogative word *poson* has to do not only for the questions about quantity – 'How many?' 'How much?' – but also for questions about size – 'How big?' Size is something predicated, quantity is not.

Logicians today use universal and existential quantifiers. Aristotle had no such tools. They belong to propositional logic and his logic was one of terms. He distinguishes universal and particular predication, but, as I shall say below, not with the aid of our quantifiers but as different forms of predication.

We cannot conclude, however, that he and Plato had no notion of quantification as distinct from predication. Philosophers today sometimes speak of existential and predicative statements as if saying something exists and predicating something of something were different kinds of complete statement. They also say that verbs which express existence are used not to predicate but to quantify; though some feel that saying that something actually exists is different from saying, for instance, that there is an even prime number or a red darker than scarlet. Certainly 'There are wasps' sounds as complete a statement as 'That's a wasp'. But in 'There are wasps' some predication is implicit: you take me to mean that there are wasps *where we are*. Plato and Aristotle appear to think of saying something exists, not as a kind of complete statement, but as part of constructing a subject-expression, and Aristotle distinguishes actual from possible existence.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

In *Theaetetus* 184e-185d Plato distinguishes discerning perceptible qualities from discerning being, *ousia*, likeness and unlikeness, seeing that things are the same or other, and seeing there is one or some other number of them. At 186a-b he says that *ousia* most of all is common to everything and adds that we get at the being of beautiful and ugly, and good and bad by comparing things with one another and past happenings with future. Being, same and other reappear as 'big kinds' at *Sophist* 254c-e and are joined by change and staying the same, *kinêsis* and *stasis*. Ryle in his paper 'Letters and Syllables' suggests that these big kinds are kinds, not of subjects 'about which true and false assertions can be made'. but of 'what is assertible about subject terms, that is, very crudely, they are basic verb forms'.[7] Saying they are kinds of thing assertible about subjects does not distinguish them from Aristotle's categories; those are kinds of thing we can predicate. But the suggestion that Plato's kinds are 'basic verb forms' fits with the suggestion in *Sophist* 253 that they stand to other kinds as vowels to consonants. Rather than basic *verb* forms, however, I think Plato conceived them as forms of speech, corresponding to forms of intelligent thought (*Theaetetus* 185c-d, *Republic* 7:524b-d, etc.). They are ways of putting together words that signify real things. 'Same' and 'Other' can be correlated with the acts of saying things are the same (identifying) and saying they are other (differentiating). 'Staying the same' and 'Change', can correlated (as I shall explain below) with two forms of predicating, using verbs of being (as in 'Socrates *was* healthy') and verbs of becoming (as in 'Socrates *became* healthy'). And Being can be correlated with quantifying, saying things exist or speaking of them as existing.

If Plato thought along these lines he need not have believed that the five 'kinds' of *Sophist* 254 are the only forms of linguistic act. Whereas Russell considered 'resemblance' a signifying word signifying a relation,[8] Plato couples its Greek equivalent [*homoiotês*] with Being and other 'big' forms (*Theaetetus* 185c, *Parmenides* 129a, 130b, etc.) and probably thought comparing a further form. Nor need he have thought these forms mutually exclusive in the way commands, wishes [*eukhai*] and statements (mentioned in Aristotle *Poetics* 1456b8-13) are mutually exclusive forms of speech. He probably thought that speaking of things as being comes into the analysis of all speech; perhaps that either speaking of things as staying the same or speaking of them as changing comes into all; and speaking of things as the same or other comes into his analysis at *Sophist* 263

[7] Gilbert Ryle, *Collected Papers* Vol. 1 (London: Hutchinson 1971), 67.
[8] Op. cit., 96.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

of all speaking that is true or false. The true speech that Theaetetus is seated 'says things that *are* about you as being', and the false speech that Theaetetus is flying 'says things that are *other* than things that are … things that *are not* as *being*'. When things, then, are said about something that is, 'things *other*, however, as the *same*, and things that *are not* as *being* – such a putting together of *onomata* and *rhêmata* really and truly looks as if it is a false speech'.

Plato, on this interpretation, takes speaking of things as *being* as a form of speech, and one different from speaking of things as the *same* and *other*. Speaking of things as the same or other, I suggest, is his notion of predication, whereas speaking of things as being is his notion of quantification, and he thinks we do it in constructing subject-expressions. A speech, he says (*Sophist* 263c9-11) that is not about anything that is, is not a speech at all; but (262c2-5) a word for something like 'lion' does not express the being of anything until it is used in a complete sentence.

Quantification over predicates is described as Platonism by Quine, and on the so-called 'Oxford' interpretation of Plato's account of false speaking, Plato would have favoured analysing 'Theaetetus is flying' as 'There is such a form as flying and it is the same as some form shared in by Theaetetus.' It does not follow, however, that he would have allowed 'There is such a form as flying' as a satisfactory utterance by itself, or that he thought we can quantify over things we predicate without identifying, differentiating or, as in 'Flying is faster than swimming', comparing.

Aristotle, like Plato, treated saying things exist as a form of speech different from predication (*Posterior Analytics* 2:89b25-32). He drew a distinction, however, which is absent from Plato: the distinction between possibility and actuality explained in *Metaphysics* 5:1017a39-b9; 6:1026a35-b2; 9:1045b32-4; 1048a30-b9. This is different from the distinction between possibility and necessity he considers in the *De Interpretatione* and *Prior Analytics*. Aristotle applies the distinction between possibility and actuality to explanatory factors [*aitia*] in *Physics* 2:195b3-5, 21-30 and to knowledge [*epistêmê*] both in the *Metaphysics* and in the *De Anima*. In *Metaphysics* 13:1087a15-21 he says: 'Knowledge and knowing are twofold, in possibility and in actuality', and in *De Anima* 3:431b24-6: 'Knowledge and perception divide along with things [*pragmata*], the possible being of possible things and the actual [*entelekheiai*] of actual'. In the *Metaphysics* he shows that there are reasons for thinking that knowledge (13:1086b33) and definition (7:1036a28-9) are of what is universal [*katholou*] and also that nothing predicated universally (7:1038b8-9) or signified by a

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

general term (3:1006b8-9) can be what is primarily real. Nothing, it seems, can be primary both for knowledge and for existence. His solution to this apparent difficulty is that definition and dispositional knowledge are of possibilities and things thought of as possible; the exercise of knowledge, actual knowing, is of actualities, fulfilments of possibilities, which are particular.

I have defended this interpretation elsewhere;[9] here my concern is with the linguistic acts of quantifying and predicating. Signifying words signify things that can be thought of as actualities or as possibilities – possible kinds of thing, possible qualities, possible ways of moving and so on. When we use them to predicate we think of what they signify like that, they enter our thought as possibilities for numbers of things or amounts of stuff. When we say 'Bucephalus was a horse' we think of what is signified by 'horse' as something possible, a species of animal to which something can belong. And when we use a signifying word as a subject-expression, as we use 'god' in 'The gods laughed' (*Odyssey* 8:326, cf. *De Anima* 1:402b7) we think of what it signifies as an actuality, an actual specimen of a kind of living thing, or an actual instance of a possible quality or movement.

It may sound strange to say that when we use a count noun like 'horse' to predicate, we think of what it signifies as a possibility. In saying 'Bucephalus is a horse' do we think of Bucephalus as a possible horse? Quine[10] scoffed at speaking of possible men, as though they would have to be possible men actually existing in places like doorways. If, when driving, we see the words 'possible vehicles ahead' we take them to mean, not that there actually are possible vehicles ahead, but that there possibly are, there might be, actual vehicles ahead. The words 'sort' 'kind' and 'species' are used in the same way as 'shade' of colour, 'form' of movement. In 'That's crimson' 'crimson' signifies a possible colour in that it signifies a shade of colour; 'horse' in 'That's a horse' signifies a possible animal in that it signifies a species of animal; and 'hearse' in 'That's a hearse' signifies a possible vehicle in that it signifies a kind of vehicle. These words give rise to the deep questions Porphyry mentions, only if we think of them as themselves signifying things that do or might exist; in fact they are used with such words to signify what those words signify already considered as possibilities. We can have the same trouble

[9] 'Aristotle and the Uses of Actuality', *Boston Area Colloquium in Ancient Philosophy* **5** (1989), 1–22.

[10] W.V.O. Quine, *From a Logical Point of View* (Cambridge Mass.: Harvard University Press 1964), 4.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

over abstract nouns formed from adjectives, verbs and common count nouns, such as 'yellowness', 'mystification' and 'caninity' These do not signify things that do or might exist; they signify the same things as are signified by the concrete terms but already conceived as possibilities. 'Caninity' signifies what is signified by 'dog' considered as a possibility, and 'Argus *was a specimen of caninity*' is a mystifying way of saying 'Argus *was a dog*.'

Crivelli is right, I think, in *Aristotle on Truth*, when he says that Aristotle does not admit empty terms; he takes all signifying words to signify things that exist. In his treatment of the Square of Opposition Aristotle takes subject terms as non-empty: in 'All men are white' [*leukos*; the word could mean pale as contrasted with dark] we speak men as existing in actuality; we say there are actual men, and assert the colour of all of them. In 'No men are white' we again say there are actual men and deny the colour of all of them. Aristotle also assumes predicate-terms are non-empty, so that if we say 'No men are white' we should be prepared to say there is such a colour as white. What in his view we should say, however, is that there is such a *possible* colour as white. We do not actually say this in simply predicating the colour, but only when we form a subject-expression like 'the colour white' and say the colour exists or is real. Then we actually quantify what we predicate, but considered as a possibility. Whereas Plato, not distinguishing possibility and actuality, perhaps thought that quantifying is part both of constructing subject-expressions and of constructing predicate-expressions, Aristotle, I suggest, thinks actual quantification is limited to constructing subject-expressions. In 'Aeroplanes are flying over London' we actually quantify aeroplanes as actualities, and we think dispositionally that flying is something possible but do not actually quantify it as a possibility. In 'The flying over London keeps me awake' we actually quantify flying as an actuality. In 'Flying is faster than swimming' we actually quantify flying and swimming as possibilities. Possibility and actuality are not themselves different possibilities, but quantifying things as possibilities and as actualities are different possible linguistic acts.

Crivelli attributes to Aristotle the view that all 'universals', all things, that is, which we predicate, exist. Crivelli does not distinguish possibility and actuality, but I think he understands this as actual existence. He says that Aristotle is 'committed to the view that… all universals are always instantiated'.[11] Aristotle can avoid this ontologically lavish commitment if his view is as I have just said. (In

[11] Op. cit., 78–82.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

Metaphysics 9:1051b26-8 Aristotle does speak of non-composite *ousiai* that exist actually, but these, I think, are not universals but bodiless objects of what he called *theologia*.)

Things signified by words can be thought of as possible and as actual, but not in both ways at once, and a word cannot be used to signify something considered in both ways at once; nor considered in neither way. If he had seen that, instead of distinguishing *suppositio* from *significatio* as he did, Ockham could have distinguished two ways a word can signify in use, to quantify actualities and to predicate possibilities.

Austin distinguished between what he called a 'phonetic' act, making a sound, a 'phatic' act, using a word in a language, and a 'rhetic' act, saying something, and he said 'naming and referring' are 'ancillary acts performed in performing the rhetic act'.[12] Plato and Aristotle, I think, conceived quantifying and predicating not as complete acts of speaking, but as ancillary acts performed in every act of speaking.

Russell declared: 'Broadly speaking, proper names stand for particulars, while other substantives, adjectives, prepositions and verbs stand for universals.'[13] And he argued that universals really exist independently of minds, though not in space or time. Conceding that 'the relation *north of* does not seem to *exist* in the same sense in which Edinburgh and London exist', he proposes using 'subsist' for existence that is not spatio-temporal. Non-spatio-temporal but real existence might have seemed less bizarre if instead of introducing a new word for it, 'subsist', he had said it is existence as a real possibility.

Aristotle in *Categories* 1b25-2a4 calls things signified by common count-nouns *ousiai*, a word which, when he uses it, is usually translated 'substances'. In *Metaphysics* 7:1028a14-20 he says that substances exist in a primary way, and other things by virtue of being qualities, sizes or affections or what not *of* substances. His idea, perhaps, was that his 'substances' can be quantified as actualities by themselves [*kath' hauta*]. We can say how many elephants there are in a place without quantifying anything else. Things signified by other words can be quantified as actualities only if we first quantify *ousiai*. To quantify the swimming in the river we must first quantify the swimmers; to quantify the white in a room (*Categories* 1a25-8) we must quantify white objects. In *Metaphysics* 7:1033a4-7 Aristotle

[12] J.L. Austin, *How to Do Things With Words* (Oxford: Clarendon Press 1962), 92–3, 97.

[13] Op. cit., 93.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

distinguishes count nouns from mass nouns like 'water', 'gold', 'air' and 'flesh'. The latter signify things of which natural objects or artefacts are composed or which they contain. We quantify these only through the things that contain them; we quantify the water in the jug, the gold in the ring, the air in the balloon, the flesh in the lamb or its leg.

5.

What of predication? If we confine ourselves to indicative sentences, Aristotle in the first place distinguishes (*Metaphysics* 6:1017a23, 1026a36) as many 'forms of predication' [*skhêmata tês catêgorias*] as there are 'kinds of real thing' [*genê tou ontos*], or questions we can ask about a subject. Predicating a species or kind is saying something *belongs* to it, predicating a quality or size is saying that something *has* it, predicating an action like walking is saying that something *engages* in it.

Secondly he distinguishes universal from particular predication. Logicians today do this by means of universal and existential quantifiers. To take Aristotle's examples 'All men are healthy', 'No men are healthy', we treat them as equivalent to 'There is nothing which is a man and not healthy' and 'There is nothing that is a man and healthy.' Aristotle held that in both sentences we say that there are men. Like Ockham after him he takes the adjectives of quantity 'all' and 'no', as grammatical words which give our predication the form of a universal affirmative or negative (*De Interpretatione* 20a12-14).

Thirdly, Aristotle distinguishes affirmative predication from negative, asserting something of a subject from denying it of that subject, for example saying something *has* a property from saying it *lacks* it. And as I said at the beginning, he explains speaking truly as asserting of things what they are and denying of them what they aren't. This explanation works only for simple statements in which something is predicated positively or negatively of something that actually exists. When we get beyond these we need conventions to determine what it is to speak truly. If you try to predicate something of something that does not actually exist Plato seems to favour saying you do not speak at all, whereas Aristotle favours saying you speak falsely. (*Categories* 13b25-6. He has been said to recognise only internal negation, but this passage shows he recognises external too.) In some contexts we today understand 'if' as a truth-functional operator, but ordinary conditional sentences usually imply a

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

non-truthfunctional relation of causation or purpose; what it then is to speak truly calls for agreement.

Frege's treatment of predication is much simpler. He recognises only one form of it, designating an 'object' as an argument of a certain kind of function. All Aristotle's 'forms of predication' can be treated in this way, and in his paper 'Negation'[14] Frege argues against negative predication. He reduces internal negation to external, and absolute denying to asserting a negation: denying that a rose is red, is asserting that *it is not the case* that it is red. Dummett gives a Fregean account of being true of something in terms of absolute truth. He says:

> A one-place predicate is, then, true of a given individual just in case the sentence which results from inserting the name of that individual in the argument-place (gap) of the predicate is true.[15]

Frege's strategy may seem preferable because it more economical; it does not multiply beyond necessity uses of negative particles, forms of predication or even forms of indicative speech, yet it enables us to give a logical analysis of any indicative sentence.

But is Frege's approach really more economical? He started from mathematical discourse. Qualities like the colour red, species like the horse and actions like conquest do not exist in mathematics. Nor does change, causation or time; mathematicians have no need of verbs of becoming or tenses. Ordinary speakers use and need both, and a reason for accepting positive and negative predication is that multiplying forms of speech simplifies our ontology; it saves us from multiplying kinds of real thing. I shall consider change first, and then time.

Consider the sentences 'The tomato was red' and 'The tomato became red': would Frege say the predicate-expressions designate different functions? Becoming red, surely, is a change, and being red a state of affairs.

Not exactly. It would be more correct to say that *the tomato's* being red is a state of affairs, and we do not predicate that of the tomato. Davidson, however, suggested that in 'Shem kicked Shaun' we quantify over events, we say there was an event which was Shem's kicking of Shaun.[16] Perhaps in 'The tomato became red' we say there was an

[14] *Translations*, 117–35.

[15] Michael Dummett, *Frege, Philosophy of Language* (London: Duckworth 1973), 11.

[16] Donald Davidson, 'The Logical Form of Action Sentences', in *Essays on Actions and Events* (Oxford: Clarendon Press 1982), 118.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

event which was the tomato's becoming red, and in 'The tomato was red' we say there was a state of affairs which was its being red. Perhaps, then, the sentences differ not in what we predicate but in what we quantify; reality contains both events and states of affairs.

Russell in *The Principles of Mathematics* s.442 avoids this dualism by reducing becoming to being different at different times. He would analyse 'The tomato became red' as 'There was a time at which it was not red, and a later time at which it was.' This simplification requires postulating instants of time, a difficult move for him if the notion of such an instant is in fact, as Strang suggests, that of a switch between changing and staying unchanged.[17] And that apart, should Russell say that that *redness after not being red* is a different predicate from redness, or that redness can be predicated in two ways, as something had, and as something *had after not being had*. Neither move is attractive.

Can we avoid saying reality contains both events and states of affairs by saying simply that becoming red is a different possibility from being red? But possibility of what kind? A possible thing to *do*, like building a house? Building is not an action upon what we build but it is still a kind of action. Becoming is not. Aristotle says that the passive forms of verbs signify not doing, *poiein*, but undergoing, *paskhein* (*Categories* 2a3-4). This points the way to the account I have advocated elsewhere of the difference between verbs of being and verbs of becoming.

'To become' does not, like Aristotle's examples of undergoing, 'to be cut', 'to be burnt', signify what action is undergone. But using 'become' with a complement is predicating what is signified by the complement as an effect of causal action, whereas if we use a verb of being, the same thing is predicated not as an effect but rather as a condition for the effectiveness of causal action and as a possible reason for intentional action. If I think of the dryness of the grass as the effect of drought, I think of the grass as *having become* dry; if I think of it as a condition of the effectiveness of dropping a lighted cigarette for starting a fire, I think that it as *being* dry, and equally if I think of its dryness as a reason *against* dropping my lighted cigarette. That gives verbs of becoming a meaning similar to passive inflections of voice.

This account allows for the reality of causation in a way in which Russell's reductive account of change does not. His world, in which things simply have different properties at different moments

[17] Colin Strang, 'Plato and the Instant', *Aristotelian Society* **48** (1974), 63–7.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

of time, is like the mathematician's world in which nothing causes anything. Moreover if I say 'The tomatoes are becoming red,' I am not predicting that they will at a later time be red. That prediction, as Vendler points out,[18] will have been false if they are picked and destroyed before they have become red. But my statement is true if something, some present action on them by the sun, is causing them to become red.

There is no change in the mathematician's world and (consequently, perhaps,) no time. Mathematicians do not need tenses. But *we* use them in speaking of actual things. To take Aristotle's example in Chapter 9 of the *De Interpretatione*, we might say that two navies will fight tomorrow. That chapter has evoked reams of commentary ever since Hellenistic times, and here I shall only formulate two questions might occur to philosophical readers today. Do statements about the future cause difficulty because we fail to draw distinctions of scope? It is a necessary truth that if the navies will fight tomorrow, they will fight tomorrow. It is not the case that if they will fight tomorrow, it is a necessary truth that they will fight tomorrow.

Alternatively if, like Aristotle, we wish to explain absolute truth in terms of something's being true of something, we may ask: 'Do statements about the future cause trouble when we attach futurity to what is predicated rather than to the predicating?' If in 'The navies will fight tomorrow' I predicate future fighting of them, saying it is true of the navies at the time of my utterance that they will fight the following day, and in saying that I speak truly, it looks as if the battle is fated. But if I say that it will tomorrow be true of the navies that they fight, then even if I speak truly, the battle may depend on decisions taken after my utterance.

At 17a26-31 Aristotle says:

> It is possible to state what belongs as not belonging and what does not belong as belonging, and the same with times outside the present.

I take him to mean that we can predicate something as having belonged or not belonged and as being about to belong or not belong; tense inflections, like negative particles, determine modes of predication. Fighting as a possible activity is something timeless, but tense-inflections 'signify in addition' a temporal relation - either to the utterance or to some earlier or later event.

[18] Zeno Vendler, 'Verbs and Times', *Philosophical Review* **66** (1957), 145.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press

Aristotle notes that the existential 'to be' has tense-inflections (*De Interpretatione* 19b14-17), so he can say that we 'signify time in addition' in quantifying as well as in predicating. In *De Interpretatione* 21a25-8 he says that saying 'Homer is a poet' is speaking truly, but 'Homer exists' is speaking falsely. That looks inconsistent with his statement that saying 'Socrates is healthy' is speaking falsely if Socrates does not exist. The awkwardness could be avoided by saying that in 'Homer *was* a poet' we say that there *was* such a person as Homer, and it was true of him, that he wrote poetry.

A final consideration. Mathematical speech is limited to statements but in ordinary life we order, forbid and express wishes. Frege says that 'imperative' sentences and 'sentences expressing desires or requests' fail to express 'thoughts'.[19] (He allows that 'sentence-questions', as he calls sentences like 'Is Mars red?' express thoughts, an awkward concession, since the sentence 'Is Mars red' looks like a *request to say* whether Mars in red.) Nonetheless in 'Theaetetus, sit!' and 'Theaetetus, don't sit' we speak, and the word 'sit' is used as a grammatical predicate. Are ordering Theaetetus to sit and forbidding him to sit different ways of predicating sitting, or is there only one form of imperative predication, commanding, and is forbidding him to sit commanding something negative, commanding him to refrain from sitting (or to engage in not-sitting)? And suppose Helen says 'If only I hadn't eloped to Troy.' Does she express a positive attitude towards something negative, her not having eloped, or a negative attitude towards something positive, her elopement? Does she predicate eloping of herself as something she regretted, something in which she wished she hadn't engaged, or not eloping as something into which she wished she'd flung herself? If there are different ways of predicating the same thing in imperative and optative speech, denying that there are in indicative speech seems captious.

WILLIAM CHARLTON (william.charlton1@btinternet.com). *Recent books include:* Metaphysics and Grammar (*Bloomsbury 2014); recent papers include: 'Heaven',* New Blackfriars ***97*** (2016) 547–59.

[19] 'The Thought', in *Philosophical Logic*, ed. P.F. Strawson, (London: Oxford University Press 1967), 21.

https://doi.org/10.1017/S0031819118000311 Published online by Cambridge University Press