

INTENTIONALITY

MEINONGIANISM AND THE MEDIEVALS

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Intentional verbs create three different problems: problems of non-existence, of indeterminacy, and of failure of substitutivity. Meinongians tackle the first problem by recognizing non-existent objects; so too did many medieval logicians. Meinongians and the medievals approach the problem of indeterminacy differently, the former diagnosing an ellipsis for a propositional complement, the latter applying their theory directly to non-propositional complements. The evidence seems to favour the Meinongian approach. Faced with the third problem, Ockham argued bluntly for substitutivity when the intentional complement is non-propositional; Buridan developed a novel way of resisting substitutivity. Ockham's approach is closer to the Meinongian analysis of these cases; Buridan's seems to raise difficulties for a referential semantics. The comparison between the Meinongian and medieval approaches helps to bring out merits and potential pitfalls of each.

I. Introduction: Intentionality

This paper concerns intentional contexts, that is, contexts generated by verbs such as 'seeks', 'believes', 'fears', 'hopes', and so on. Notoriously, such contexts pose many problems. In this paper, we will look at some of these. We distinguish straight away between intentional verbs that are followed by a 'that'-clause and those that are not. Examples of the first kind are: 'Mary believes that the earth goes round the sun', 'Pat hopes that it will snow at Christmas'; examples of the second are: 'Fred is looking for an hotel', 'Pat fears a nuclear holocaust', 'John loves Mary'. Intentional contexts of the first kind have received more attention in the literature; we focus here on the second. Doubtless, a satisfactory account of either kind cannot be given without a satisfactory account of the other (and we will certainly indicate some connections as we go along). However, we hope that coming at things from this side of affairs for a change will provide a source of new illumination. In what follows, we will use 'intentional context' (and similar locutions) to refer to this second kind, unless stated otherwise.

We will explain and contrast two sorts of analyses of such contexts. One account is a modern Meinongian, or neo-Meinongian, one; the other is a

medieval one. These two might seem unlikely bed-fellows. But it will turn out that they are more similar than one might have thought. One thing they have in common is the fact that they both take intentional verbs of the kind in question at face value. That is, whilst other accounts may try to interpret sentences containing such verbs in terms of mental representations, Fregean sense, or in some other way try to show that the surface grammar is misleading, the accounts we will be dealing with simply understand, e.g., ‘John fears the man next door’ as expressing a binary relation—between John and the man next door. The two accounts are by no means identical, however, and the contrast afforded by their differences throws certain aspects of each into relief.

Intentional contexts pose a number of problems. Three, in particular, concern non-existence, indeterminacy, and the failure of substitution. Such problems are often run together indiscriminately under the blanket rubric of ‘intentional context’. But though the problems are related, they are quite distinct. We will structure our discussion by treating the three *seriatim*. First, in each case, we will describe a Meinongian approach; then we will explain the medieval approach. We end with some general comments of comparison.

II. Non-Existence

To discuss the first problem, we restrict ourselves, in this section, to contexts where the intentional verb is followed by a name or a definite description, such as ‘I seek Atlantis’ or ‘I promise you the hat worn by Wellington at the Battle of Waterloo’. The problem with such sentences is simply that the thing which is the object of the intentional state may not exist. Atlantis, for example, presumably does not. How can there be a relationship between things one of which does not exist?

A. Meinongianism

Let us start with the Meinongian account. According to a Meinongian, the thought that something has to exist to have properties and bear relations to other things—especially intentional relations—is simply a prejudice. The *Sosein* (so-being: what its properties are) of an object is quite independent of its *Sein* (being: existential status). In particular, when one, e.g., fears something, one has a direct phenomenological experience of a relation to the object of the fear. And the phenomenology is quite independent of whether or not the object *actually* exists. What more natural, then, than to suppose that there are lots of different kinds of objects, and that some exist and some do not? Thus, the Meinongian takes quantifiers to range over a domain of objects; and existence, contrary to what Kant is supposed to

have claimed,¹ is a perfectly ordinary predicate, which may hold or fail of these objects. The Meinongian generosity extends, note, just as much to impossible objects as possible objects. For one can think of the greatest prime number just as much as one can think of the smallest. And one can both seek a proof of Goldbach's Conjecture and seek a proof of its negation—though one of these cannot exist.

Meinongianism is certainly a contentious view, but our aim here is not to defend it. It has been ably defended by many contemporary philosophers, such as Parsons, Zalta, and, notably, Routley.² We note, here, merely that it is the first piece of the jigsaw in an account of the semantics of intentional verbs. There are other pieces of the jigsaw to examine. Before we move on to these, however, let us turn to the medieval account of the matter.

B. Ampliation

The medieval account which we will discuss is less well-known to modern logicians than the Meinongian account.³ So let us start by going back to basics. Medieval logicians took simple sentences (i.e., those not containing connectives like disjunction and the conditional) to be constituted by two terms related by the copula (hence the name for these logicians: 'terminists'), e.g., 'every person is one with a father'. As the example illustrates, though, terms could be complex, and might be what we would now think of as quantifier expressions.

The terminists explained the semantics of such sentences by invoking various properties of the terms and of their parts [Read 2001].⁴ We will need to review some of these. The first is *signification*. To one group of terminists, including William of Ockham, the signification of a term is simply its extension. Thus, 'penny' signifies pennies. To another group, this was too radical. For Buridan, for example, writing in the mid-fourteenth century, the concept *F* is abstracted from *F*s by an act of mind and forms a natural likeness of them. English speakers, for example, then adopt the convention

¹ Though this is a complete misreading of Kant. Kant did not claim that existence is not a predicate; he claimed that it is not a determining predicate. See Kant [1963: A598 (=B626) ff.].

² It is defended by Priest [2000], which cites references to those just mentioned. Interestingly enough, there were Meinongians in modern philosophy before Meinong. Arguably, Reid was one. See Nichols [2002].

³ There were several medieval accounts, and theories evolved and changed significantly over the 300 years and more of medieval logic. The account we shall consider is found in several authors. We will ride fairly rough-shod over some of the differences between various versions of the account.

⁴ In 'Everyone has a father' the terms are 'everyone' and 'one with a father', but most medievals would also consider the properties of the sub-term 'a father' as well.

of letting the sound ‘penny’ signify the concept of penny. So by convention, the sound ‘penny’ ultimately signifies pennies via its immediate signification of the concept.

Secondly, we turn to the even more important notion of *supposition*. The supposition of a term is relative to the particular sentence in which it occurs. It is, again as a first cut, what the term refers to, as required by the truth conditions of the sentence. Thus, in ‘Man is a species’, ‘man’ supposits for a universal (whatever one thinks that is); in ‘Man has three letters’, it supposits for a word. Cases of this kind were called *simple* and *material* supposition, respectively.⁵ When a term supposits for what it (ultimately) signifies, it was said to have *personal* supposition. (At least, this is how Ockham, writing in the generation before Buridan, and Buridan himself defined the term.) Personal supposition is itself of different kinds. When the term supposits for one particular object, in the way that a proper name or a definite description does, it was said to have *discrete* supposition. Otherwise it had *common* supposition. There were various distinctions drawn within common supposition, too. We will come back to these in due course.

The property of terms which is crucial for our present concerns is *ampliation*. Various verbs, or their features, may change the supposition-range of terms in the sentence in which those verbs occur. For example, consider the sentence ‘The Pope is walking’. In this, ‘The Pope’ has discrete supposition and supposits for a certain man, who now exists. But consider the sentence ‘Socrates is dead’. Anyone who is dead no longer exists. Hence, there is nothing for the term ‘Socrates’ to supposit for. Nonetheless, the sentence is true. To allow the term ‘Socrates’ to supposit, the tense of the verb ‘walked’ must allow the term ‘Socrates’ to supposit not just for present objects, but for past objects too. This is *ampliation*.⁶ Similarly, ‘The Antichrist is walking’ is false, for the subject refers to nothing presently existing. But ‘The Antichrist will walk’ is true (according to the medievals), for the future tense of the verb ampliates the subject to present and future objects, and the Antichrist will exist (and walk) in the future. Constructions other than tense also have the power to amplify. Thus, it is presumably true that the Third World War may start next year—however much we might hope that it will not. The modal auxiliary ‘may’ ampliates ‘the Third World War’

⁵ In fact, Buridan conflated them, since simple supposition is really just material supposition for the mental word.

⁶ It should be pointed out that medieval discussions of ampliation were normally carried out in the context of common supposition, not discrete supposition. Indeed, Buridan [2001: 918–19] denies that ampliation properly applies to terms with discrete supposition. One is not here moving from narrower to wider (‘more ample’) supposition, but from supposition for nothing to supposition for something. Nonetheless, Buridan does think [2001: 918] that the supposition of terms with discrete supposition behaves as we describe, even though he is not prepared to call it ampliation.

to supposit not only for present, past, and future things, but also for merely *possible* things. Other modal auxiliaries, like ‘can’ and ‘must’, do the same. Here is Buridan on the matter:

A term put before the verb ‘can’ . . . is amplified to stand for possible things, even if they do not and did not exist. Therefore the proposition ‘A golden mountain can be as large as Mont Ventoux’ is true.⁷

[Buridan 2001: 299]

After this prolegomenon, we come at last to intentional verbs. The medievals claimed that verbs of this kind also have the power to amplify the supposition of terms following them. Thus, ‘I understand the Antichrist’ is true, since ‘the Antichrist’ supposits for a future entity due to the ampliation of ‘understand’ [ibid.]. However, such verbs may amplify not just to past and future objects, but also to merely possible objects. For example, in ‘I seek Atlantis’, ‘seek’ ampliates the supposition of ‘Atlantis’ so that it may refer to a possible but non-existent object.⁸ William of Sherwood and other thirteenth century figures speak quite unguardedly of terms amplified to things that do not exist [De Rijk 1982: 172]. And here is Paul of Venice on the matter:

The absence of the signification of a term from reality does not prevent the term’s suppositing for it.

[Paul of Venice 1978: 13]

The medievals, then, were quite happy to countenance non-existent objects.⁹ The standard classes of objects to which ampliation allowed access were the past, the future, and the possible. Did they also countenance impossible objects? Certainly not Buridan. Buridan’s analysis of the sophism, ‘Non-being is thought of’, makes it clear that he, at least, believed that everything that did not exist was at least possible. He writes:

The sophism [‘A non-being is understood’] is false, for the term [‘a non-being’] supposits for nothing. And this is clear in the following manner: the verb ‘to understand’ or ‘to be understood’ ampliates supposition to past and

⁷ The medievals also recognized the operation inverse to ampliation, which restricts a range of supposition, rather than extending it. Thus, for example, they held that ‘in my pocket’ restricts the supposition of ‘coin’ in ‘Every coin in my pocket is a penny’ to supposit only for coins in my pocket.

⁸ It should be noted that in these examples, the term whose supposition is amplified is, strictly speaking, only a part of the predicate. Thus the proper predicate in ‘I seek Atlantis’ is ‘seeker of Atlantis’. (I *am* a seeker of Atlantis.)

⁹ In this, in fact, they were just following Aristotle’s lead: ‘even non-existents can be signified by a name’, *Posterior Analytics* 92^b29–30 [Aristotle 1928 (trans. Ross)].

future, and even to all possible things. Therefore, if I say ‘A being is understood’, the term ‘being’ stands indifferently for every present or past or future or possible thing. But the rule is that an infinitizing negation added to a term removes its supposition for everything for which it supposed and makes it supposit for everything for which it did not supposit, if there are any such things. Therefore in the proposition ‘A non-being is understood’, the term ‘non-being’ does not stand for some present, nor for some past, nor for some future, nor for some possible being; therefore it supposits for nothing, and so the proposition is false.

[Buridan 2001: 923]¹⁰

Other authors, in contrast, believed that verbs like ‘signify’ and words like ‘intelligible’ could amplify terms to a fifth class of objects, beyond the standard four (what is, was, will be, or can be) namely, what can be imagined. Marsilius of Inghen, for example, writes:

Ampliation is the supposition of a term . . . for its significates which are or were, for those which are or will be, for those which are or can be, or for those which are or can be imagined.

[Maierù 1972: 182; cf. Bos 1983: 103]

What, however, can be imagined? Marsilius certainly does not think that everything can be imagined. The void can be imagined because it can be created by the omnipotency of God. But a chimera may or may not be imaginable. The notion of a chimera may, in fact, be understood in two ways. A chimera may simply be something with an unnatural combination of parts (the head of a lion, the body of a goat, and the tail of a serpent); but it may also be something that has the essences of each of its parts, which is impossible (since the pertinent essences are incompatible) [Bos 1983: 192; cf. Ashworth 1977: 62]. Indeed, it is not uncommon for medieval writers to use the chimera as a standard example of an impossible object. At any rate, Marsilius thinks that a chimera, taken in the first way, is imaginable; but taken in the second way, since it is literally impossible, is not. (Cf. Ashworth [1977: 72].)

Paul of Venice [1978: 254], however, is prepared to go further. For him, a chimera is indeed impossible. Nonetheless:

The verbs ‘think of’, ‘imagine’ and so on, both when they occur with an embedded clause and when they take a direct object [e.g., ‘I conjecture

¹⁰ See also Ebbesen [1986: 137]: ‘Buridan holds that the ampliative force of “opinabilis” [believable] does not extend to impossible entities.’ Buridan is cited as saying: ‘Every term which supposits, supposits for that which is or can be or has been or will be; but . . . it is impossible that a chimera can be, or can have been or can come to be . . . [Hence] “A chimera is thinkable” is false.’

a chimera', 'I imagine a vacuum'] always...cover not being as well as being.

[Paul of Venice 1981: 76]

Indeed:

Although the significatum of the term 'chimera' does not and could not exist in reality, still the term 'chimera' supposits for something in the proposition... 'A chimera is thought of', since it supposits for a chimera.

[Paul of Venice 1978: 13]¹¹

Thus, there were at least some medieval logicians who were 'fully-fledged' Meinongians.¹²

III. Indeterminacy

We turn now to the second sort of problem posed by intentional contexts: indeterminacy. This arises specifically when the verb is followed by a phrase of the form 'a so-and-so'. Consider, for example, the sentence:

(1) I promise you a penny.

(a much-discussed medieval example). This can be true even though there is no particular penny that I have promised you. The object of the intentional verb is, therefore, indeterminate. How can this be? Note that this problem is quite independent of the problem of existence. The problem arises with this example, even though lots of pennies exist. Conversely, there is no indeterminacy in 'I seek Atlantis', even though Atlantis does not exist.

One further preliminary point. The sentence in question is, in fact, ambiguous. It *can* mean that there is some particular penny that I have promised. For example, I may have promised you the first penny minted in 2001. On the other hand, there may be no particular penny. Maybe you lent me a penny, and I have simply promised to repay it. We can call these the

¹¹ See also Paul of Venice [1499: f. 13^{vb}]: 'A fourth way of responding is better: verbs like "is understood", "we believe", "signifies", "supposits" and so on amplify their subject and predicate for present, past, future or imaginable things. So the proposition "A chimera is understood" should be analysed like this: "This is understood and this is or can be imagined to be a chimera".'

¹² A generation earlier than Paul in Oxford, we also find Ralph Strode saying [Maierù 1972: 176]: "supposits" is an ampliative term just like "signifies" ... and so we must concede that "chimera" signifies something, even though what it signifies does not exist, and it supposits for something which nonetheless does not exist, just as I can think of or imagine what does not exist. Indeed, the term "chimera" supposits for something truly in such a proposition as "A chimera is believed in". It is not clear from the context, though, which notion of chimera he is operating with.

determinate and *indeterminate* senses of (1) and its kin, respectively. How can one tell the difference? In the determinate case, one can ask the question ‘Which penny?’ and expect to receive a sensible answer, such as ‘the first penny minted in 2001’. In the indeterminate case, one cannot. If I lend you a penny, and you promise to give me a penny back at a later date, to ask ‘which one?’ would normally be a joke. There is no particular penny such that I have promised to give you *that* penny.¹³

A. Propositional Equivalents

Let us first address the issue from a Meinongian perspective. The determinate sense of (1) is straightforward. It is simply:

(2) $\exists x(x \text{ is a penny} \wedge \text{I promise you } x)$.

This sort of sentence raises no new problems. It is true that I can promise you things of a non-existent kind. I might, for example, promise you a unicorn. Provided we can quantify over non-existent objects, as one can for a Meinongian, there is no particular problem here.¹⁴

Well, that’s a slight oversimplification. Suppose, to change the example so that we have a ready stock of names, I worship a Greek god:

(3) $\exists x(x \text{ is a Greek god} \wedge \text{I worship } x)$.

Suppose that this sentence is true because I worship Zeus. Then its truth follows simply by generalization from:

Zeus is a Greek god \wedge I worship Zeus.

If one thinks, as do many Meinongians, that ‘Zeus is a Greek god’ is literally true, this is all fine. But some Meinongians, e.g., Priest [2000], have suggested that this is not a literal truth, but only a truth in the way that things are represented to be in some intentional propositional state, thus: in the way

¹³ One might object: even in that case, there *is* some penny that I promised to give you:— the penny that I promised to give you. But that can’t be right. Suppose that I have two pennies. They can’t *both* be the penny that I promised to give you, else I would have promised you twopence. Whichever isn’t it, I couldn’t then keep my promise by giving you that one. But that’s silly.

¹⁴ This dismantles a problem of Geach’s [1972]. Geach worries about how to understand the sentence ‘Hob thinks that a witch blighted Bob’s mare, and Nob wonders whether she (the same witch) killed Cob’s cow’. Since the pronoun ‘she’ picks up a reference to a particular witch, the question ‘which witch?’ makes sense. Hence, we should parse the sentence as: $\exists x(x \text{ is a witch} \wedge \text{Hob thinks that } x \text{ blighted Bob’s mare} \wedge \text{Nob wonders whether } x \text{ killed Cob’s cow})$. Geach considers this suggestion [1972: 148], and rejects it on the ground that it entails the existence of witches. Not if one is a Meinongian.

that the Ancient Greeks believed the world to be, Zeus is a God. Let us write the intentional propositional state as Φ . Then what is normally expressed by 'I worship Zeus' must be understood as:

$\Phi(\text{Zeus is a Greek god}) \wedge \text{I worship Zeus}$.

And so 'I worship a Greek god' must be understood as:

$\exists x(\Phi(x \text{ is Greek god}) \wedge \text{I worship } x)$.

It is worth noting that, at least arguably, intentional contexts may have a similar effect on definite descriptions. Suppose that I believe there to be a man next door, who is nasty and vicious. I have never seen him, though I have been told about him. I fear him. But suppose also that, in reality, though there is a man next door, he is meek and mild, and a very friendly person. Now, consider:

(4) I fear $\iota x(x \text{ lives next door})$.

Is the object of my fear the man who actually lives next door?—in which case, (4) is equivalent to:

$\exists y(y = \iota x(x \text{ lives next door}) \wedge \text{I fear } y)$.

Arguably not. The object of my fear is a non-existent object. The intentional verb ampliates the description, as one might say, so that (4) is best understood as:

$\exists y(\Phi(y = \iota x(x \text{ lives next door})) \wedge \text{I fear } y)$.

where Φ , here, is 'I believe it to be the case that'.

Let us now turn to the indeterminate sense of (1). We should be clear, to start with, that Meinongianism does *not* solve the problem of what this is. It might be thought to do so because, notoriously, Meinongian objects can be indeterminate in certain ways: the Golden Mountain, for example, is neither rugged nor smooth, neither 15 carat nor 22 carat. If I say 'I promise you a penny' in the indeterminate sense, maybe I promised you an indeterminate Meinongian penny? This thought does not survive long. I promised no such thing. If I had, it would make sense to ask 'which penny was promised?' and answer it with 'a certain non-existent object'. But that is manifestly not what was promised. In the indeterminate case, the question makes no sense. We have, therefore, to look elsewhere.

Since the problem does not arise when what follows the verb is a name or a definite description, but only when it is something of the form 'a so and so';

and since phrases of this kind often express existential—or better, if one is a Meinongian, particular—quantification in English (e.g., in ‘Every man loves a woman’), an analysis in terms of quantifiers begs to be given. The trouble is that quantification doesn’t seem to get us what we want. Writing (1) as (2) gives it the wrong sense, and because what follows the verb is not itself a sentence, there is nowhere else to place the quantifier.

We may solve this problem as follows. When I promise you a penny, what I am, in fact, doing is promising *to give* you a penny. If this is the case, then we can analyse the indeterminate sense of (1) as:

(5) I promise that $\exists x(x \text{ is a penny} \wedge \text{I give you } x)$.

Similar cases of indeterminacy can be handled in the same way. Thus, the indeterminate sense of ‘I am looking for an hotel’ means ‘I am intending to find an hotel’, i.e., I am intending that $\exists x(x \text{ is an hotel} \wedge \text{I find } x)$. Similarly, if I like a good curry then, presumably, what I like is to eat a good curry (though an unusual context could imply that I like it for something else!). Thus we have: I like it to be the case that:

$\exists x(x \text{ is a good curry} \wedge \text{I eat } x)$.

This solves the problem of the indeterminate sense by construing the utterances with intentional verbs in question as elliptical for ones with an intentional verb with a that-clause; the indeterminacy is then handled by appropriately placing a particular quantifier. The crucial question is whether this strategy is always available to us. Whenever there is a case of indeterminacy, can the sentence be taken as elliptical for one with a propositional complement?

There certainly are intentional verbs whose uses resist being understood as expressing any kind of notion with a propositional complement. Thus, if I worship Zeus, this fact cannot be cashed out as any particular intentional propositional attitude. Similarly, if I hallucinate a monster, there is no corresponding propositional state. Some writers, for example, Lakoff [1970: 221] have mooted the possibility of there being covert such notions for which we currently have no name. Thus, for Lakoff, to admire x is to *wurf* to *glip* x . To endorse this view would, however, be an act of desperation. No content whatever can be given to *wurfing* or *glipping*. These are pseudo-notions. Hallucinating a monster is irredeemably hallucinating *something*, not *F-ing that* anything. It speaks in favour of the analysis, then, that with verbs that resist this kind of glossing, cases of indeterminacy do not seem to arise. If I say ‘I worship a Greek god’, the question ‘which one?’ always seems to make sense. If I say ‘I hallucinated a monster’, the question ‘what was *it* like?’ is

always appropriate. Or consider Lakoff's example. 'Admire' is an intentional verb which, despite what he says, it seems impossible to paraphrase in a propositional fashion. 'I admire John' does not seem to be equivalent to anything of the form 'I... that... John...'. Now consider 'I admire a well-dressed woman'. This clearly has a determinate sense: there is some particular well-dressed woman I admire. In this case, there is even a universal sense: I admire any well-dressed women ($\forall x(x \text{ is a well-dressed woman} \supset \text{I admire } x)$). But what there does not seem to be is any indeterminate sense. We conjecture, then, that indeterminacy arises only when the statement made can be understood as equivalent to one with a 'that'-clause. And if this is right, the solution sketched above is quite general.

Since the universal quantifier has just raised its head, let us end the section with a few words about this and other sorts of quantifier. Intentional verbs may be complemented not only by names and phrases employing a definite or indefinite article, but by phrases of the form 'every/most/few *F*s', e.g.:

(6) I worship every/most/few/etc. Greek god(s).

Given the above analysis, the treatment of these cases is routine. In the 'every' case, (6) can be understood as above:

$$\forall x(x \text{ is a Greek god} \supset \text{I worship } x)$$

or if one thinks it is not literally true that Zeus is a Greek god:

$$\forall x(\Phi(x \text{ is a Greek god}) \supset \text{I worship } x).$$

for a suitable intentional operator, Φ .

Quantifiers like 'most' and 'few', resist being cashed out in terms of a propositional connective.¹⁵ In such cases, the quantifier, Q , needs to be understood as irreducibly binary, so that ' Q As are Bs' has the form $Qx(Ax, Bx)$. In this case, 'I worship Q Greek gods', becomes: $Qx(x \text{ is a Greek god, I worship } x)$ —or maybe: $Qx(\Phi(x \text{ is a Greek god}), \text{I worship } x)$ —for some suitable intentional operator, Φ .

B. Supposition Theory

Let us now turn to the medieval solution of the problem of indeterminacy. To understand it, we need to say a little more about the theory of supposition, and specifically about the different modes of common (personal) supposition. Common supposition is usually divided into *determinate* supposition and *confused* supposition. The second of these is split again into *confused and*

¹⁵ And maybe this is not the best way to understand 'some' and 'every', either.

distributive and *merely confused*. The marks showing that specific terms in a proposition have these three modes of supposition were taken by Ockham, Buridan, and their followers to be the possibilities for descent from the said proposition to singular propositions (replacing the term and its determiner by a term with discrete supposition), and for ascent from those singular propositions to the original. Let us illustrate with examples.

Consider the sentence 'Some man is mortal'. One can infer from this that *this* man is mortal or *that* man is mortal or ... for an appropriate enumeration of men. Moreover, one can infer the sentence from each disjunct. This marks out 'man' as having determinate supposition here.

Next, consider the sentence 'All men are mortal'. One can infer from this that *this* man is mortal and *that* man is mortal and ... for an appropriate enumeration of men. One cannot, however, infer the sentence from any conjunct. This marks out the supposition of 'man' as confused and distributive here.

Finally, consider again 'All men are mortal', but this time consider 'mortal'. One cannot infer 'All men are *this* mortal or all men are *that* mortal or ...'. Nor can one infer the corresponding conjunction. But one can infer 'All men are *this* mortal or *that* mortal or ...' for an appropriate enumeration of mortals. Moreover, one can infer 'All men are mortal' from 'All men are this mortal', were it true for some instance. This marks out the supposition of 'mortal' as merely confused here.

Terry Parsons [1998] usefully likens these three modes of supposition to a modern notion of 'global quantificational effect', that is, the kind of quantifier which would correspond to the term if the sentence in question is expressed in modern notation in a certain kind of normal form: determinate supposition corresponds to wide scope existential quantification; confused and distributive supposition to wide or narrow scope universal quantification; and merely confused supposition to narrow scope existential.

We can now return to the question of indeterminacy in intentional contexts, and in particular, the two senses of (1). Supposition theory can explain its ambiguity. The determinate sense is that in which 'penny' has, happily enough, determinate supposition, since one can descend to:

(7) I promise you *this* penny or I promise you *that* penny, and so on

(and ascend from any disjunct). The indeterminate sense, on the other hand, is that in which 'penny' has merely confused supposition. One cannot infer the wide-scope disjunction, but one can infer:

(8) I promise you *this* penny or *that* penny or, and so on

(and one can ascend from anything of the form 'I promise you this penny').

Note that the determinate sense entails the indeterminate sense, but not vice versa. This fact was captured by the medievals in their rule that one can infer a proposition containing a term with merely confused supposition from one otherwise the same but exhibiting determinate supposition, but not vice versa (e.g., Buridan [2001: 264].) This rule follows almost immediately from the characterization of determinate and merely confused supposition in terms of descent and ascent.¹⁶

Note also that the disjunctions in (7) and (8) extend over all present and future pennies. ‘Promise’ is an intentional verb that ampliates the supposition of the term following it in such a way. For I can fulfil the promise by giving you a penny that does not yet exist. Thus, in ‘All men will die’, the future tense ampliates the suppositional range of ‘men’, so that we can descend to ‘*This* man will die and *that* man will die and ...’ for all present and future men.¹⁷

Perhaps the most notable difference between the medieval and Meinongian accounts in the case of the problem at hand is that the medieval account does not require any propositional analysis of the indeterminate sense of (1) and its like. The indeterminate sense is obtained by attributing to ‘promise’ the power to cause terms following it to have merely confused supposition (in Parsons’s terms, to have narrow existential effect), just as it has the power to amplify their supposition. This uniformity speaks in its favour. On the other hand, just because of the uniformity, one would have thought that it ought then to be possible to have an indeterminate sense in all cases. Thus, there ought to be an indeterminate sense of ‘I worship a Greek god’, that is, ‘I worship Zeus or Hera or Aphrodite and so on’ which is different from ‘I worship Zeus or I worship Hera or ...’. If there is no such sense, as would seem to be the case, this speaks against the analysis. It certainly does not

¹⁶ Actual history is a bit more complicated than the generic account we have just given indicates. Neither Ockham nor Buridan thought that (1) was ambiguous. Both distinguish between

(A) I promise you a penny

and

(B) A penny I promise you

neither of which they take to be ambiguous. (B) gives the determinate sense of promising, and in (B) ‘A penny’ has determinate supposition. For Ockham, ‘a penny’ has merely confused supposition in (A). It is not clear what Buridan takes the supposition to be since, as we shall see, his views concerning appellation seem to prevent any descent in this case. Just to complicate matters, there were also medieval logicians, such as Walter Burleigh, who held that ‘a penny’ in (A) has simple supposition. See Klima’s introduction to Buridan [2001: *lii*].

¹⁷ Ockham, in fact, analyses examples of this kind differently, by diagnosing an ambiguity, not by appealing to the notion of ampliation. See, e.g., Priest and Read [1981].

refute it, though. We might just suppose that verbs like ‘worship’ do not possess the power of confusing the supposition of terms following them, despite their ability to amplify; but this appears somewhat ad hoc.

Finally, before we turn to our third problem, let us return to the issue of quantifiers other than the usual ones. There is certainly no problem with ‘every’: in ‘I fear every Greek god’, ‘Greek god’ has confused and distributive supposition, amplified by the verb ‘fear’, so that one can descend to ‘I fear Zeus’, ‘I fear Hera’ and so on. The medievals appear, however, to have given no more attention to pleonetic quantifiers, such as ‘most’ and ‘few’, than have their modern counterparts.¹⁸

IV. Failure of Substitutivity

Let us now turn to the third problem. *Prima facie*, at least, the object-place of an intentional verb may resist the substitution of a co-referring term. Thus, a hooded man comes into the room. Unbeknownst to you it is your brother. You certainly know your brother, but you don’t know the hooded man. But this flies in the face of Leibniz’s Law, that if $a = b$ then any property of a is a property of b . Note, again, that this problem has nothing to do with existence. Even if it is true that Sherlock Holmes was the killer of the hound of the Baskervilles (neither of whom exists or existed), it might yet be true that you believe that Sherlock Holmes lived in Baker St. but do not believe that the killer of the hound of the Baskervilles lived in Baker St. You might never have read that particular Holmes story.

A. Propositional Complements

Let us take a Meinongian response first. The simple and obvious solution is that substitution *is* legitimate. You do know the hooded man. You just do not realize this fact. (See Priest [2000].) Indeed, this sort of solution is almost mandatory if one parses intentional verbs with noun-phrase complements as expressing a relation between a subject and an object.

It might well be thought that one is not out of the woods, however. You do not realize that you know the hooded man. But the hooded man is your brother; so it follows by Leibniz’s Law that you do not realize that you know your brother—which is clearly false. Note, however, that the intentional context that we are substituting into this time is one with a propositional complement, not a noun-complement, ‘You realize that... the hooded man ...’. We are thus required to deny the substitutivity of identicals in contexts of this form.

¹⁸ The term ‘pleonetic’ was coined by Geach [1968: 125].

Exactly how and why substitutivity fails in such contexts is an important question. But since it concerns intentional verbs with propositional complements, we will not pursue the matter here. (It is pursued in Priest [2002].) For this occasion, the following suffices. One would seem to be stuck with the failure of substitutivity in this sort of context anyway. One can, for example, believe that George Eliot was a man without believing that Mary Anne Evans was a man (not knowing that they were the same person). And since we are stuck with it, we may as well invoke it to explain the apparent failure of substitution in intentional contexts for verbs with noun-phrase complements.

B. Medieval Responses

So let us move on to the medieval account of the matter—or accounts, since different moves appealed to different logicians. We will consider Ockham's and Buridan's accounts.

1. Ockham and Accident

Ockham, like the modern Meinongian, simply accepts substitutivity in non-propositional intentional contexts. Thus, in his discussion of *De Sophisticis Elenchis*, he insists that there is no fallacy in the argument:

- (9) You know Coriscus.
 Coriscus is the hooded man.
 So you know the hooded man.

The inference is valid, he says [Ockham 1979: 231].¹⁹ His explanation of why it appears to fail is that there are similar arguments that are fallacious. The arguments in question are fallacies of accident.

What is a fallacy of accident? The term was coined by Aristotle in chapter 24 of his *De Sophisticis Elenchis*, but his comments are difficult to decipher,²⁰ and different medieval commentators fastened onto different aspects of his discussion.²¹ But 'accident', here, it should be noted, has nothing much to do with the usual notion of accident in Aristotle. Peter

¹⁹ Here and in subsequent examples, Ockham's actual predicate is 'coming', not 'hooded'.

²⁰ What he actually writes about the hooded man is as follows [179^a33–^b3]: 'Do you know the hooded man? . . . in the case of a man wearing a hood, ["to be hooded"] is not the same thing as "to be Coriscus". So suppose I know Coriscus, but do not know [the hooded man], it still isn't the case that I both know and do not know the same man.'

²¹ For example, some latched onto the thought that there is lack of unity in the middle term of the offending syllogism—suggesting a fallacy of four terms; others that the

of Spain wrote (about one hundred years before Ockham and Buridan):

It must be said that . . . ‘accident’ is not used as it is by Porphyry as one of the five predicables [species, genus, differentia, property, and accident], nor as Aristotle uses it of the four predicates in the *Topics* [definition, property, genus, and accident], nor in the sense of accident contrasted with substance But accident here means ‘does not follow of necessity’.

[Peter of Spain 1972: 146]

In the same vein, Ockham writes in his *Summa Logicae*:

On this matter it should be realized that ‘accident’ is not here taken in the way it was taken earlier, where it was shown that accident is one of the five universals, but here ‘accident’ is taken for every term which can be the subject or predicate distinct from another. Whence every term which can be the subject or predicate of a proposition can be, and is, the accident in respect of another, because it is capable of being a predicate or subject distinct from another predicable.

[Ockham 1974: 818]

A fallacy of accident occurs, according to Ockham, whenever one confuses an invalid syllogism with a valid one. Consequently, he says, we cannot give a general rule to describe fallacies of accident, since there are many ways of doing this. Nonetheless, he proceeds to this generalization: one type of fallacy of accident²² occurs when a mode (such as ‘know’ or ‘possible’) is prefixed to one premise in a valid syllogism, but cannot validly be prefixed to the conclusion even though the other premise is true [Ockham 1979: 239]. Thus, the syllogism:

- (10) Coriscus is a man.
 Coriscus is hooded.
 So the hooded one is a man.

is valid. But the result of prefixing ‘You know that’ to the major premise and the conclusion is not. (Nonetheless, if we prefix ‘You know that’ to both premises and the conclusion, we again obtain a valid argument, he says [ibid.].) To take it to be valid would be a fallacy of accident.²³

²¹ *Continued* . . .

middle term does not apply in the same respect as the major term applies—suggesting a fallacy of reduplication (*S* is *M*, but not qua *P*).

²² In Ockham [1979] this is the second of three types of fallacy of accident; in Ockham [1974], it falls under the first of two.

²³ In fact, that is perhaps a slightly misleading way to state Ockham’s analysis of the fallacy of accident here. There is really only one argument, (10). What is mistaken is to

Now, at last, to come to (9). According to Ockham [1979: 234], we take this to be invalid, since we confuse it with:

- (11) You know that Coriscus is a man.
 Coriscus is hooded.
 So you know that the hooded one is man.

This inference is invalid,²⁴ and is a fallacy of accident, since we confuse it with the valid (10).

What to make of the details of Ockham's analysis is clearly moot. Yet one essential thing is clear: the similarity between Ockham and the Meinongian of the previous section. Like the Meinongian, Ockham accepts the validity of substitution in the case of intentional verbs with noun-phrase complements (as in (9)); but he rejects it within propositional complements (as in (11)).

2. Buridan and Appellation

Let us turn to Buridan's account of the matter. Unlike Ockham, he rejects substitutivity in intentional contexts such as (9). And he does this by appealing to another property of terms, *appellation*. The concept of appellation went through several phases in medieval logic. Buridan's application of it was to claim that terms have not only a signification and, in the context of a sentence, a supposition, but also, in the same context, an appellation, namely the concept or form expressed (or *ratio* as Buridan calls it). Moreover, appellation functions differently in predicates (or, more generally, in words occurring after, and so in the scope of, certain verbs) from the way that it does in subjects (or before those verbs).

In an idea probably original to him, Buridan uses this idea to try to explain the failure of substitutivity. Thus, the inference:

- Coriscus you know.
 Coriscus is the hooded one.
 Hence, the hooded one you know.

is valid, since the substitution is in the subject place. But the inference:

- You know Coriscus.
 Coriscus is the hooded one.
 Hence, you know the hooded one.

²³ *Continued . . .*

suppose that one knows the conclusion of (10) if one knows its first premise (and not its second). As one might put it (clearly truly), knowledge is not closed under material consequence.

²⁴ According to Ockham, other commentators had misstated the paralogism.

is invalid, since the substitution is in the predicate place, and the appellation of the predicate gets in the way [Buridan 2001: 896].

It is not immediately obvious how appellations turn the required trick. For in chapter 2 of his *Sophismata* Buridan argues at considerable length in favour of a criterion of truth in terms of supposition (and against a criterion such as ‘Things are as they are signified to be’); and appellation seems to have no obvious bearing on this. Buridan’s answer invokes the doctrine of restriction (the converse of ampliation; see n. 7), and would seem to be as follows. According to Buridan, a sentence such as ‘You know Coriscus’ is true if and only if the subject, ‘you’ and the predicate, ‘one knowing Coriscus’, supposit for the same thing. Now, ‘one knowing Coriscus’ supposits for those who know Coriscus (under some description or other); but the appellation restricts it to those knowing Coriscus qua Coriscus (under that name).²⁵ Similarly with ‘a knower of the hooded man’. Thus, ‘one knowing Coriscus’ may supposit for you because you know him under that appellation, whilst ‘a knower of the hooded one’ does not.²⁶

How successful Buridan’s account is, it is difficult to judge, since the full details do not seem to be worked out; but there are serious worries as to whether it can be made to work in a way compatible with the rest of the suppositional machinery. The appeal to appellation threatens to undercut much of what was said about intentional contexts in previous sections. As Ashworth [1977: 77] writes: ‘to appeal to appellation theory is to acknowledge that no purely extensionalist interpretation of all propositions can be given and that no unified theory of inference is possible.’

To see the problem, just consider the sentence:

(12) I promise you every penny.

²⁵ ‘Therefore, such verbs . . . restrict terms following them which they govern to supposit for those for which they supposit not absolutely but with the appellation of the *ratio* or the concept according to which those terms signify what they signify’ [Buridan 1976: 101]. Buridan speaks here of the restriction of supposition of terms following the intentional verb. However, in applying his account of supposition, we have reinterpreted his remarks to apply to the whole predicate, including the intentional verb, in accordance with his much-repeated injunction to apply supposition strictly to the whole predicate, not to its parts.

²⁶ According to Buridan, a subject term supposits for something as long as there is *some* appropriate appellation [2001: 895]. Effectively, then, appellation drops out of the picture. Thus, from ‘You know Coriscus’ one can infer ‘Coriscus you know’. Thence, by substitution on the subject place, one can infer ‘The hooded one you know’. But one cannot infer ‘You know the hooded one’. This last move fails because of appellation. ‘The hooded one you know’ is true whatever the appellation, since the term ‘the hooded one’ occurs in front of, or before, the intentional verb ‘know’. But for ‘You know the hooded one’ to be true, you would have to know him under that appellation; that is, you would have to know him *as* the hooded one.

This ought to have confused and distributive supposition, since we can descend to: I promise you this penny and I promise you that penny and But ‘promiser of every penny’ and ‘promiser of this penny’ clearly have different appellations. What we want to say is that from the fact that ‘promiser of every penny’ supposits for me, it follows that ‘promiser of this penny’ supposits for me. But that does not hold in general.

Buridan acknowledges this. In his analysis of the tenth sophism in the chapter on Appellation in his *Sophismata* [Buridan 2001: 893, 904] he states that one cannot descend from:

(13) You know every pair [of objects] to be even.

to: you know this pair to be even and you know that pair to be even and so on, because the appellation has changed—if I have two coins in my pocket, it does not follow that you know that the coins in my pocket are even.²⁷

So what is the supposition of ‘every penny’ in (12)? Buridan has nothing to say on these matters. It is clear that in general the behaviour of appellation is going to block any descent to singulars. This would seem to rule out any suppositional mode. Some medievals operated with a notion of immobile confused and distributive supposition, though there is no evidence to suppose that Buridan did.²⁸ But the notion is barely coherent, since confused and distributive supposition is defined in terms of the possibility of descent, while ‘immobile’ means that descent is not possible for some reason [Paul of Venice 1971: 103; cf. Hughes’s note, Paul of Venice 1990: 230]. Worse: a notion of supposition without descent deprives the notion of its major functions. The notion of supposition was supposed to provide the technical machinery to describe the semantics of sentences, and so explain the inferential relations between them. The notion of descent was central to these enterprises.

²⁷ Actually, propositional complements like (13) (though not (12)) may be a problem for Ockham too. Rightly or wrongly, even he thinks that one cannot descend to a conjunction of singulars in such contexts. One can know that every truth is true without knowing that some particular truth is true [1979: 238].

²⁸ Paul of Venice does. He says, for example, concerning the sentence ‘You lack (a loaf of) bread’ [Maierù 1972: 243, citing Paul’s *Quadratura* I 23]:

It is clear regarding the verb ‘lack’, because it distributes and immobilizes at the same time. For from ‘You lack (a loaf of) bread’, ‘You do not have (a loaf of) bread’ follows, but this inference would not be valid unless ‘bread’ in the premise stood distributively, and so ‘bread’ stands distributively in the conclusion. But that it stands immobilely is clear, because from ‘You lack (a loaf of) bread’ and ‘These are all the loaves’, ‘You lack this loaf and that loaf and so on’ does not follow.

The basic problem here is, in fact, one familiar from modern discussions of intentionality. Buridan's use of appellation is not unlike Frege's use of his notion of sense. Like Buridan, Frege uses his notion of sense to explain apparent failure of substitutivity in intentional contexts. But the cost of this is that it interferes with things like quantification into such contexts, and other purely referential devices. Frege's theory is therefore quite different from the referential theories of intentionality familiar from Russell and Kripke. In the same way, Buridan's appeal to appellation is more at home in a non-referential account of intentionality, whilst the suppositional account of previous sections is, in effect, a referential account.

V. Conclusion

We have now completed our explanation and analysis of the two approaches to intentionality we set out to consider, the Meinongian approach and the medieval approach. It is, perhaps, slightly odd to compare them as rival solutions to the problems of intentionality, since the Meinongian account is embedded in modern logical syntax and quantification theory—which is alive and well—whilst the medieval account is embedded in a terminist logical syntax and supposition theory, which can hardly be said to be alive and well. Putting that fact aside, though, what we have seen is as follows.

There is little difference between modern Meinongians and the medievals concerning the first issue we discussed (existence). Both are quite willing to operate with non-existent objects. Some medievals were not prepared to push this as far as impossible objects; but others were. Concerning the third issue (substitutivity), there is agreement of principle between Meinongians and at least the Ockhamites. Both accept substitutivity in non-propositional complements but not in propositional complements—though they may differ on the details as to why the latter fails. Clearly there is a substantial disagreement with Buridians, yet Buridan's account sits ill with the tenor of suppositional semantics, just as Frege's account sits ill with the tenor of modern referential semantics. Perhaps the most striking difference between Meinongians and the medievals concerns the second issue (indeterminacy). Concerning this, the two approaches have different strengths and weaknesses. The medieval account does not have to appeal to paraphrase in the way that the Meinongian account does; but at least the paraphrase strategy gives a very natural explanation of why certain intentional sentences are not ambiguous, which can only be explained on the medieval account *post hoc*.

The analysis of intentional contexts has received much less attention in modern logic than it should have (due partly to the influence of extensionalist doctrines such as those of the *Tractatus* and Quine). A Meinongian account

of such contexts is still a minority view. But no modern view on the matter has, in fact, attracted a consensus. The medievals achieved at least a partial consensus, though they may have differed on the details of how a suppositional account was to be applied. What consensus—if any—will emerge on the matter in modern logic, time will tell.²⁹

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