

Arguments as Abstract Objects

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Abstract: In recent discussions concerning the definition of argument, it has been maintained that the word ‘argument’ exhibits the process-product ambiguity, or an act/object ambiguity. Drawing on literature on lexical ambiguity we argue that ‘argument’ is not ambiguous. The term ‘argument’ refers to an object, not to a speech act. We also examine some of the important implications of our argument by considering the question: what sort of abstract objects are arguments?

Résumé: On a avancé dans des discussions récentes que le mot «argument» est ambigu : il signifie soit un procédé ou un produit, ou soit n acte ou un objet. Nous puisons dans des publications sur l’ambiguïté lexicale pour soutenir que «argument» n’est pas ambigu. Ce terme se réfère à un objet et non pas à un acte de langage. Nous examinons aussi quelques implications de nos arguments sur la question: Un argument est quelle sorte d’objet abstrait?

Keywords: abstract object, act/object ambiguity, argument, definition, realism, speech act.

1. Introduction

Many argumentation theorists have claimed that an argument is a speech act by which reasons are given in favour of a claim. For instance David Hitchcock writes: “an argument is a claim-

reason complex consisting of an act of concluding (which may be of any of the five main types in Searle's taxonomy of speech acts) and one or more acts of premissing (each of which is an assertive)" (Hitchcock 2007, p. 6). In the more technical formulation of the definition, an argument is a set of the form $\{ \langle c, \therefore, P \rangle \}$ or $\{ \langle P, \therefore, c \rangle \}$, where P is the set of assertives which constitutes the premises of the argument, the conclusion c is a speech act of any type, \therefore is a premiss indicator, and \therefore is a conclusion indicator. A similar definition of 'argument' is to be found in Van Eemeren and Grootendorst (1984, pp. 19-35, 39-46). For them an argument is a constellation of speech acts: "The constellation of statements $S_1, S_2, (\dots, S_n)$ consists of assertives in which propositions are expressed... Advancing the constellation of statements $S_1, S_2, (\dots, S_n)$ counts as an attempt by S to justify [or to refute] O to L 's satisfaction" (1984, p. 43), where O is an opinion, S is the speaker, and L the listener.

Goddu (2009) criticizes Hitchcock's definition of 'argument', not for being materially inadequate (i.e. failing to capture the concept of argument), but for not fulfilling the outcomes that Hitchcock himself thinks a definition of argument should fulfil. In reply to Goddu's comments, Hitchcock abandons the definition of 'argument' as a complex speech act (Hitchcock 2009). Several other authors continue to think that there is a place for a definition of 'argument' as a speech act. James Freeman, for instance, writes: "As is well known... we may distinguish argument as process from argument as product" (Freeman 2009, p. 1). Ralph Johnson writes: "The distinction between product and process seems to me fairly secure. It has a longstanding history here and in other disciplines. In logic, for instance, the term 'inference' is understood as ambiguous as between the process of drawing an inference and the inference that results from that process" (Johnson 2009, p. 3).¹ The belief common to many philosophers is that 'argument' is ambiguous, displaying a process/product ambiguity: the word has two literal meanings, one for the process of arguing, and another for the product of that process, which is an abstract object. Goddu (2011) offers a criticism of this claim, arguing that the abstract object that we name 'argument' is not the product of a speech act. He denies that 'argument' is subject to a process/product ambiguity, but accepts that 'argument' has two senses which "warrants talking about the activity of arguing on the one hand and arguments as objects on the other" (Goddu 2011, p. 77). It

¹ Also van Eemeren, Grootendorst, and Snoeck Henkemans write: "Argumentation relates both to the process of putting forward argumentation and to its "product," and the term *argumentation* covers the two of them" (van Eemeren, Grootendorst, Snoeck Henkemans 2002, p. xii). For more references to similar claims see Goddu (2011).

seems that he accepts that ‘argument’ has an act/object ambiguity, but not a process/product ambiguity.

Our purpose in this paper is twofold. First, while we agree with Goddu that ‘argument’ does not have a process/product ambiguity, we claim that it is also not subject to the act/object ambiguity. In particular, we argue that it does not have a sense that refers to a kind of speech act. The upshot of this argument is to maintain that a definition of argument as a certain kind of speech act is not acceptable, because it does not capture a meaning that ‘argument’ has at all. So we take the argumentation up where Goddu left it, and make a further step in criticizing the established view. Second, having made the case that ‘argument’ does not refer to a speech act, we propose that it refers to an abstract object. We develop a conception of arguments as abstract objects that are created by human intellectual activity and respond to major objections that such a view might face.

2. The act/object ambiguity

It is a classical claim in philosophy that some words display the so-called ‘act/object’ ambiguity. Paul Grice in ‘Meaning’ (1957) writes that, “‘utterance’ ... has a convenient act/object ambiguity.” Terms like ‘belief’, ‘thought’, ‘perception’ also have been said to be ambiguous in the same way, having one meaning that refers to an act of *perceiving*, *thinking*, *uttering* something, and a different meaning which refers to the object, or content, of that act: that which is *uttered*, that which is *perceived* etc (see MacFarlane 2007). For this reason Sellars (see Sellars 1956) called it the ‘ing/ed’ ambiguity. Alan Reeves observes that the ambiguity is a common feature of words that end in ‘ment’ and ‘ing’ (see Reeves 1975, p. 235). Other words that have been claimed to be ambiguous in this way are ‘statement’, ‘singing’, ‘weaving’ (Reeves 1975), ‘building’, ‘shot’, ‘writing’, ‘inference’, ‘statement’, ‘thought’ (Bach 1998), ‘assertion’, ‘judgment’, ‘representation’, ‘action’, ‘endorsement’, ‘imagination’, ‘description’, ‘classification’ (Brandom 2011).

The word ‘argument’ ends in ‘ment’ and belongs to the same semantic category as some of the words mentioned above. This suggests that it is also ambiguous, having one sense that refers to a speech act of arguing, and another sense that refers to the content of that act, which is probably an abstract object. In order to answer the question about whether this alleged ambiguity of ‘argument’ is real, we appeal to a number of tests for ambiguity that have been developed in the literature. Not all

tests are easily applicable, but some of them offer some reasonable *prima facie* evidence for an answer to our question.

What does it mean to say that a word is ambiguous? Here is one answer: “An expression is ambiguous iff the expression has more than one meaning” (Gillon 1990, p. 394). In Bach (1998) we find a similar definition of ambiguity. We are concerned here with *lexical* ambiguity, that is, ambiguity of simple expressions, which have more than one literal meaning. The term ‘literal meaning’ is used in different ways in the literature on ambiguity, and in semantics in general. Roughly speaking, it makes reference to the meaning of words in the lexicon, and whose knowledge is therefore *a priori*. The literal meaning of an expression, what Kaplan (1989) calls its *character*, is a context-independent property of it, that it has in virtue of being a meaningful part of a language. The theoretical role of literal meaning is that it determines, or at least constraints, the contribution of the expression to the proposition literally expressed by utterances of sentences containing that expression. These are theoretical claims, and so the precise sense in which they are to be understood depends on the particular theory of lexical semantics that one considers.

While it may seem that we can intuitively determine whether a word is ambiguous or not simply by applying the definition, this is not, in fact, the case. As several authors point out, claims of ambiguity are theoretical.² They are not a direct expression of intuitive judgements about whether a word is subject to an ambiguity or not. Different kinds of semantic intuitions competent users have, as well as observations about use of expressions, are part of the data that lexical semantics, together with the theory of predication and a theory of non-literal use of expressions have to explain. But the relation between data and theory is not straightforward. For instance, when an expression is systematically used in two different ways, one possible explanation of this variation is that the expression has two literal meanings that are homophonic, i.e. associated to the same linguistic form. But there are other possible explanations that have to be ruled out before concluding that a word is ambiguous. In general, to say that a word has various *uses* is not yet to say that it is ambiguous. ‘Argument’ is sometimes used to refer to a speech act, and sometimes used to refer to an abstract object. This observation about the plurality of uses of ‘argument’ parallels Donnellan’s observation about the plurality of uses of defi-

² For example, Reeves writes: “So long as we think of judgments of ambiguity... as intuitive... we shall be unable to adjudicate disputes over what is ambiguous... They are not to be thought of as we think of perceptual judgments. A word does not look ambiguous as a surface looks red” (Reeves 1975, p. 233).

nite descriptions: when in the subject position they can be used referentially or attributively. A plurality of uses needs not be explained by postulating various independent literal meanings, that is, ambiguity. In some cases the best explanation could be pragmatic (see section VII of Donnellan 1966). As tests of ambiguity (some of which are mentioned below) show, the word ‘bank’ is ambiguous, i.e. a case of *homophony*. There is no other plausible explanation. But the word ‘chicken’ is not clearly ambiguous, with a sense referring to chicken meat and another referring to a kind of animal, although we may *use* it to mean the former in the context of a restaurant, and we may use it to mean the latter during a visit at grandma’s house in the countryside. It is plausible to think that the best account of the former use results from some pragmatic operation on the sense of the word. The same is the case for the cognitive use of ‘see’ (as in ‘I see your point.’). As Kent Bach points out, it could be argued that the cognitive use of ‘see’ is the result of a pragmatic derivation from the use of ‘see’ that refers to perceptual experiences and only this latter use is lexically encoded. Such arguments are plausible “to the extent that the phenomenon is systematic and general, rather than peculiar to particular words” (Bach 1998), because pragmatic explanations invoke general rules of rationality that warrant certain patterns of inference.

Reasons to prefer pragmatic explanations include considerations of theoretical economy. This is what Grice calls the Modified Occam’s Razor: “senses are not to be multiplied beyond necessity” (Grice 1989, pp. 47-49). Postulating ambiguity when other explanations are available results in multiplying the entities that the theory quantifies over, in this case literal meanings, beyond necessity. Another reason to prefer pragmatic explanations is that, given that the variety of uses of virtually any word is not limited in principle, the correct explanation for *some* of these uses has to be pragmatic.³

3. The uses of ‘argument’

³ There are different kinds of pragmatic explanations. Contextualists such as François Recanati and Charles Ruhl defend a view of literal meaning as highly abstract and unspecified, the diversity of uses being a result of pragmatic processes that take as input the literal meaning of a word, and give as output the contextually modulated non-literal meaning (see Ruhl 1989, pp. xi-xii, Recanati 2004, p. 24). To give just one example, one such pragmatic mechanism is *metonymic inference*. One case of metonymic inference is the inference generated by using a name of an instrument to refer to the agent that manipulates the instrument, as in ‘answer the phone’, where ‘phone’ is used to refer to the person calling on the phone. (See also Ruhl 1989, p. 69.)

Concerning ‘argument’, dictionaries confirm the hypothesis that it has various uses.⁴ Leaving aside the uses of ‘argument’ that are irrelevant to argumentation theory,⁵ the relevant senses are (according to Merriam-Webster online dictionary): “2.a: a reason given in proof or rebuttal; b: discourse intended to persuade. 3.a: the act or process of arguing: see argumentation; b: a coherent series of statements leading from a premise to a conclusion.”

It is 3b that seems to capture the use of ‘argument’ to refer to a speech act, while 2a seems to capture the object sense. 3a captures the use of ‘argument’ to refer to an argumentative discussion, or a debate.⁶ It is easy to find examples of ‘argument’ used to refer to an abstract object. Consider the sentences:

1. Many arguments were given against adopting the proposal.
2. Two arguments were presented in the morning session.

Sentence (1) is true only if at least two independent reasons were given against the proposal, and false in a situation in which the same consideration against the proposal was repeated over and over. Usually, verbs such as ‘express’, ‘accept’, ‘make’, ‘present’, ‘suggest’, ‘mention’, ‘talk about’, ‘propose’, ‘come up with’, ‘defend’, ‘think about’, ‘give’ etc take as their object not a speech act but an informational content. To show this, it is sufficient to consider what is it that we count over in situations in which arguments are presented (or made, or suggested, or proposed etc) several times, by making several speech acts with the same content. Typically we answer the question ‘How many arguments did the speaker make (suggest, present, propose etc)?’ by counting the informational content, not the number of expositions made. So ‘argument’ does not make reference to a speech act here, but to the informational content.

It is more difficult to find examples of the use of ‘argument’ to refer to a speech act. Among the examples given in the

⁴ In the line of the observations about ambiguity claims being theoretical, I take it that dictionaries offer information about various *uses* of words, and that they cannot be taken as containing the answer to questions of ambiguity.

⁵ Such as “an abstract or summary especially of a literary work” (Merriam-Webster online). There is also the sense of ‘argument’ in mathematics, where functions have arguments, and the sense of ‘argument in linguistics, where it refers to the various positions that a noun phrase can occupy in a sentence.

⁶ The debate sense of ‘argument’ is emphasized with more clarity in *The American Heritage Dictionary of the English Language* (2003), which mentions as a second meaning “a discussion in which reasons are put forward in support of and against a proposition, proposal, or case; debate” as in ‘The argument on birth control will never be concluded.’

Merriam-Webster dictionary, possible candidates of exemplifying this use are the following:

3. They were always getting into arguments about politics (Merriam-Webster online).
4. They settled an argument that started in class (Merriam-Webster online).

One cannot get into an abstract object, and abstract objects do not start, so it seems that ‘argument’ in (3) and (4) is used to refer to an event. However, the event that it refers to is *not* that of expressing an argument, that is, not a speech act. The subject is plural in both sentences, but it is not this per se that excludes a speech act reading. The verbs used admit of singular subjects as well. However, the sentences can only be judged as true with respect to a situation in which the agent (or agents) is (are) engaging in a debate. The sentences are not true with respect to a situation in which there is no debate going on, just a collective speech act performed by the subjects. The same can be said about:

5. She won the argument.

To win an argument is not to win a speech act of arguing, but a certain kind of dispute or debate. In all these examples, ‘argument’ is used to name a discussion in which arguments are used. We are not taking a stand here on whether ‘argument’ is ambiguous between a debate meaning (as in 3, 4 and 5) and an object meaning (as in 1 and 2).⁷ But even if it is, this ambiguity is not an act/object ambiguity, because a debate is not an act, not even a complex act. It is rather to be equated with a series of speech acts performed by different agents, addressed to one another, and in which different reasons are invoked, both in favour and against a certain claim, questions are asked, objections are raised, clarifications are made, definitions are given etc. We are denying that ‘argument’ instantiates the speech act/abstract object ambiguity. This claim is independent of the claim that it instantiates the debate/abstract object ambiguity.⁸

⁷ O’Keefe (1977) distinguishes between two senses of argument, one that refers to a speech act (or speech event), which he calls ‘argument1’, and one that refers to a particular kind of interaction, which he calls ‘argument2’.

⁸ If a debate is after all to be correctly characterized as an act, then ‘argument’ does instantiate the act/object ambiguity. However, that does not affect the main claim that we defend here, which is that ‘argument’ does not name a certain kind of speech act, one in which premises are put forward in support of a conclusion, as in Hitchcock’s and van Eemeren’s and Grootendorst’s definitions.

Sentences (3) and (4) exemplify the debate sense of ‘argument’, and so the Merriam-Webster dictionary fails to provide examples of the speech act use. However, ‘argument’ can be used to refer to a speech act by which arguments (in the object sense) are conveyed. Here are some examples:

6. The argument began at 5pm.
7. The argument lasted for five minutes.
8. That was such a long argument.
9. The argument was interrupted by the fire alarm.

All these sentences have at least one reading that is about a speech act or a series of speech acts in which an argument is put forward (but not only one reading, because the debate sense of ‘argument’ allows for a different event reading). So ‘argument’ is sometimes used to refer to a speech act. Is this use to be accounted for by postulating a literal meaning of ‘argument’ as a name of a kind of speech act? In finding the answer to that question we appeal to some tests for ambiguity.

4. Tests for ambiguity

In what follows we present three tests for ambiguity found in the literature, and use these tests to determine whether the uses of ‘argument’ to refer to an abstract object, and to refer to a speech act of expressing that abstract object, respectively, correspond to two different literal meanings of ‘argument.’ One of these tests is based on the following observation: “If we can find an expression that expresses the same content as a particular word, but the defeasible inferences associated with the word disappear when we employ the other expression, then this is a strong indication that the inference is in some way conventionally associated with the word as part of the linguistic system” (Asher 2007, pp. 22-23). This is probably the case with pejorative words, such as ‘cripple’ and their ameliorative correspondent, ‘disabled person’. On the other hand, if the inference does not disappear, the inferred content is probably not linguistically encoded, but rather pragmatically determined. This is the case with ‘car’ in the following sentences:

10. Arthur washed and polished the car (Cruse 1986, p. 58).
11. John lubricated the car (Cruse 1986, p. 58).

‘Car’ is used in (10) to refer to the exterior, which was washed and polished, and in (11) to refer to the engine, or some other internal part, which was lubricated. If we replace the word with a

synonym or paraphrase, such as ‘automobile’ or ‘motor vehicle’, the two readings are still available.

The test for ambiguity suggested by the above observations is known as *the test of the superordinate sense* (see Cruse 1986, pp. 58-59). Consider a word *w1* that has different uses in two different sentences *s1* and *s2*, such as ‘car’, as used in (10) and (11). One formulation of the test is the following: usually when an unambiguous word *w2* can replace *w1* in sentences *s1* and *s2* without changing the intended readings of *s1* and *s2*, then the difference between the two uses of *w1* is not linguistically encoded but pragmatically determined (notice that the test does not offer either necessary or sufficient conditions for ambiguity but only *prima facie* evidence). If it were linguistically encoded then *w1* would be ambiguous, and so there could be no unambiguous word *w2* that could replace *w1* and maintain the intended readings. The problem for this test is that it is only successful if there is a strong reason to believe that *w2* is not ambiguous, which is not always easy to determine (Cruse 1986).⁹ Assuming ‘automobile’ is not ambiguous, the different uses of ‘car’ in (10) and (11) are not different literal meanings of ‘car’. If this is the case then the explanation of the different uses of should be non-lexical, but pragmatic in nature. But now consider:

12. Her husband is the manager of a local bank (Cruse 1986, p. 59).
13. At this point, the bank was covered with brambles (Cruse 1986, p. 59).

There is probably no expression that could replace ‘bank’ in both sentences such as to preserve the original readings of the sentences. ‘Place’ will not help, as Cruse (1986, p. 59) observes. So ‘bank’ is *prima facie* ambiguous, according to this test. The process that the context performs on the words is that of a *selection* of one of the literal meanings of the word. The context acts simply as a filter. With the former pair of sentences the context does not merely select a meaning, but a productive pragmatic process take place. In Cruse’s view this is a process of enhancing, specifying, or in some other way modulating a pre-existent lexically encoded meaning (see Cruse 1986, pp. 50-52).

⁹ Goddu (forthcoming, p. 3) also points out the same problem: “suppose ‘statement’ and ‘claim’ are both ambiguous between the content and the act of expressing that content. Since claim and statement are interchangeable without loss of meaning in many sentences, this test would judge neither ambiguous even though, by supposition, both are.”

What about ‘argument’? The following sentences have the abstract object reading, the written text reading, and the speech act reading, respectively:

14. The argument had two premises. (abstract object)
15. The argument is on page 100. (written words that contain the argument)
16. The argument was in English. (speech act)

Can we find a paraphrase such that replacing all the above occurrences of the word ‘argument’ in the three sentences can be used to mean the same as before the replacement? One candidate seems to be ‘the defence of the claim’:

- 14a. The defence of the claim had two premises.
- 15a. The defence of the claim is on page 100.
- 16a. The defence of the claim was in English.

The test offers *prima facie* evidence for the conclusion that ‘argument’ is not ambiguous only on the assumption that ‘the defence of the claim’ is not itself ambiguous. While that is not obvious, it is also relevant that other phrases can replace ‘argument’ in (14), (15) and (16) while roughly maintaining the initial readings, such as ‘the reasoning that leads to the conclusion’, or ‘the reasons in favour of the claim’, or even ‘the justification of the claim’. It is less plausible to think that ‘reasoning’, ‘reasons’ and ‘justification’ are all ambiguous, although we do not have an argument to the effect that they are not. The test at least shows that if ‘argument’ is ambiguous then all these other phrases need to be as well, which probably is not a plausible consequence.

A second test we will use is *the test of contradiction* (Gillon 1990, p. 407, Asher 2007, p. 64), or *the alternate truth value judgment test* (Gillon 2004, p. 161). Like the above, it only provides *prima facie* evidence for judgements of ambiguity. Typically, if a sentence is ambiguous, then “[f]or a given state of affairs, the sentence can be both truly affirmed and truly denied” (Gillon 1990, p. 407).¹⁰ According to this test, the following sentences are ambiguous:

17. Ferrell has a drink each night before going to bed (Gillon 1990, p. 407).

¹⁰ Reeves (1975) offers a criticism of the test. One of its flaws is that indexical expressions, such as ‘he’, or ‘that car’ are also deemed ambiguous by this test. However, this flaw does not concern us here, because ‘argument’ does not seem to be an indexical word anyway.

18. Chunka hit a man with a stick (Gillon 1990, p. 407).

(17) can be truly said of Ferrell if he has a glass of milk before going to bed, but it can also be judged as false because he does not have an alcoholic drink. And (18) is judged true if Chunka used a stick to hit a man, but also as being false, because Chunka did not hit a man that was carrying a stick. As Gillon points out (1990, p. 408), the test offers only *prima facie* evidence for ambiguity, but neither necessary nor sufficient conditions. The test does not determine which is the source of ambiguity, whether it is lexical, as it seems to be in (17), or structural, as it seems to be in (18).

Concerning the word ‘argument’ consider the following sentence in which ‘argument’ can be used to refer to a speech act, and can be judged as both true and false with respect to the same situation:

19. The argument was difficult to understand (Goddu 2011, p. 4).

As Goddu writes, an utterance of this sentence can be judged both as true and false: true, if the speaker’s accent was very thick, but false, if the content was straightforward. On these grounds Goddu contends that the test offers some evidence that ‘argument’ is ambiguous. However, we do not find this example convincing. In a situation in which the speaker’s accent gets in the way of successful communication, the natural thing to say is that one does not hear well what the speaker says not that one does not understand the argument. It may be that examples of sentences containing the word ‘argument’ exist that can be both judged true and false with respect to the same situation. However, lacking such examples the test gives *prima facie* evidence that ‘argument’ is not speech act/object ambiguous.

The last test we will use is *the zeugma test*.¹¹ Cruse explains the test: “independent senses of a lexical form are antagonistic to one another; that is to say, they cannot be brought into play simultaneously without oddness. Contexts which do activate more than one sense at a time give rise to a variety of oddness labelled zeugma” (Cruse 1986, p. 61). One version of the test is known as the test of pronominalization or ellipsis (Asher 2007, p. 64). It makes use of anaphoric expressions such as ‘he’, ‘she’, or ‘it’. Here is one formulation of the test: “Let *a* be an

¹¹ It is sometimes also referred to as *the antagonism test* (Cruse 1986, pp. 61-62), *the copredication test* (Asher 2007, p. 65), *the conjunction reduction test* (Bach 1998), or as *the predicate coordination test* (Gillon 2004, p. 176).

expression and *b* be an endophoric expression such that the denotation of the endophoric expression is identical with the denotation of its antecedent. Let *d*() and *e*() be grammatically congruent expression frames into which *a* and *b* can, respectively, be grammatically substituted. Let *d*(*a*) *e*(*b*) be a grammatical sentence or a grammatical sequence of sentences where *a* is the antecedent of *b*. If *d*(*a*) *e*(*b*) is judged unacceptable, then *a* is prima facie ambiguous” (Gillon 2004, p. 181). Another version of the test does not use endophoric expressions, but focuses on sentences of the form (*d and e*) (*a*). The noun *a* is used as argument of two verb phrases of two verb phrases *d* and *e*, which take as argument entities of different types. If the sentence that results is judged unacceptable, then *a* is prima facie ambiguous. Consider:

20. *The newspaper fell off the table and fired the editor (Gillon 2004, p. 177).
21. *Conrad Black established and carried the newspaper (Gillon 2004, p. 177).
22. ?Dogs can become pregnant at 12 months, but mature later than bitches (Cruse 1986, p. 64).
23. *The tailor pressed one suit in his shop and one in the municipal court (Bach 1998).
24. #The bank specializes in IPOs. It is steep and muddy and thus slippery (Asher 2007, p. 64).
25. Lunch was delicious but took forever (Asher 2007, p. 65).
26. The book has a purple cover and is the most intelligible introduction to category theory (Asher 2007, p. 16).

As example (21) shows, “[t]he subject position is not the only position with respect to which conjoined verbs may impose conflicting selection restrictions” (Gillon 2004, p. 177). The explanation of the oddness, or zeugma, has to do with the fact that verbs impose on their arguments thematic roles, meaning that they require that the arguments be concrete or abstract, animate or inanimate, etc. (see Gillon 2004, p. 168). When these restrictions on arguments are not fulfilled the result is oddness or absurdity, as in Chomsky’s (1957, p. 15) famous ‘Colorless green ideas sleep furiously.’ The sentence is grammatically correct but nonsensical due to category mistakes. Examples (20) to (24) are infelicitous. Verbs like ‘fell off’ and ‘fired’ can both take ‘newspaper’ as argument, but the same occurrence of ‘newspaper’ cannot be the argument of both verbs in the same sentence. This is explicable if ‘newspaper’ has two meanings. In (25) and (26) we also have two verb phrases that take as arguments different kinds of entities, but the sentences are felicitous. So a different kind of explanation is available here, such as

pragmatic modulation of the meaning of ‘lunch’ and ‘book’, respectively.

It does not seem possible to obtain zeugma with ‘argument’:

27. His argument was valid, but was so loud that the dog ran away.
28. I have already presented this argument several times, but now I think it is too long for presentation in class.
29. That very complex argument is on page 200.

In (27) the predicate ‘loud’ selects for an event of the speech act kind, while ‘valid’ selects for the abstract informational object.¹² In (28) what one presents several times is not one speech act, but the content of that speech act of arguing, so ‘presented’ selects for an informational abstract object. It is not the content that is long, but it is the speech act of expressing that content that takes a long time, so ‘it’ refers to a speech act. Still there is no oddness in (28). In (29) two properties are predicated of an argument, one being a property of a written text (propositions are not on a page), and the other being a property of the abstract object (which can be complex). So, ‘argument’ is more like ‘lunch’ and ‘book’, in that it does not produce zeugma. It is difficult to find cases where zeugma is produced with ‘argument’. So this test offers more conclusive evidence against a speech act/abstract object ambiguity of ‘argument’.

5. Evidence against a speech act sense

The above tests give prima facie evidence that ‘argument’ is not ambiguous between a speech act meaning, an abstract object meaning, and a written text meaning (see example (15)). One of these meanings is literal; the others are the result of modulation, or some similar phenomenon. But which one is literal? Does the literal meaning of ‘argument’ name a kind of speech acts, a kind of texts, or a kind of abstract objects? Some evidence against there being a speech act literal meaning of ‘argument’ is that the word can be used to refer to a great variety of acts and events, apart from speech acts. In different contexts each of the following sentences can be used to convey contents about a variety of events concerning arguments.

30. The argument was difficult.

¹² Goddu (forthcoming, p. 4) has objected that ‘valid’ may be here also predicated of an event, in particular the event of performing a speech act of arguing. If that is the case then the example is less convincing.

31. The argument took about an hour.
32. I enjoyed the argument most.

Sentence (30) may be used to convey that the speech act of expressing the argument was, in some sense, difficult, or that understanding the argument was difficult, or memorizing it, or translating it, or evaluating it, or reading it, or spelling it etc. The same observation can be made for (31) and (32): there is always an implicit mention of a certain kind of act. Moreover, it is not the case that the *speech* act is somehow the default reading, or even a more natural reading. It depends on the context whether the act referred to is a speech act or some other kind of act. Why then favour a speech act use as being encoded in the literal meaning of ‘argument’, and deny a literal meaning for uses of ‘argument’ to refer to other acts? Consider the option that ‘argument’ has one sense for each kind of act that it can be used to refer to (acts of translation, of evaluation etc). But now observe that the list of all possible readings of sentences (30) to (32) cannot be specified in advance, given that it depends on the number of possible acts that can take arguments as their contents. And so ‘argument’ should have an open-ended list of independent literal meanings, which have to be acquired one by one by speakers. There are two problems here. First, if the list is open-ended then one can never have knowledge of all the meanings that ‘argument’ has, and so one could never acquire complete linguistic competence with the word ‘argument’. Second, even if the list is not open-ended, but only very long, the ambiguity solution is still implausible, because a language user will surely get a new reading of (30), say about translating arguments, without the need to learn a new literal meaning of ‘argument’ (i.e. the alleged translating act sense of ‘argument’). All that is needed is that it be clear in the context that it is a translation of arguments that the speaker is talking about when uttering (30). It does not seem to be the case that the use of ‘argument’ in (30) to refer to an act of translating a certain premise-conclusion complex is independent from the use of ‘argument’ in (30) to refer to an act of teaching to students a certain premise-conclusion complex, in the sense of deploying a different literal meaning of the word.

So we have here two reasons to prefer the option of denying that ‘argument’ has a literal meaning for any of these act uses. It seems to be the case that there is no speech act literal meaning of ‘argument’.¹³ More plausibly the various act read-

¹³ Daniel O’Keefe offers an argument for a similar conclusion. While in O’Keefe (1977) the author takes argument1 to be a speech act, he later changes his mind, and in O’Keefe (1982, pp. 11-12) he presents the

ings (i.e. uses of ‘argument’ to refer to various kinds of acts) are to be explained other than by postulating separate literal meanings for each acts. It is probably the abstract object meaning of ‘argument’ that gets modulated in certain contexts so as to refer to an event of the kind of a speech act by which such an abstract object is put forward. The above argumentation can also be made for the use of ‘argument’ to refer to a written text,¹⁴ as in (15) above. And this is to be expected because writing a text is a communicative event, as a speech act is. Instead of consisting in the physical emission of sounds, an act of writing consists in the emission of certain marks on a paper, or on a computer screen etc.

6. The definition of ‘argument’

We have shown so far that ‘argument’ does not have a speech act meaning, or a written text meaning, but an abstract object meaning. Most probably, the speech act use and the written text use results from the abstract object meaning through a pragmatic process of contextual modulation. However, we are not committed to any view about how this process takes place, or about whether it is entirely pragmatic. We are only interested in the conclusion supported by the evidence presented that ‘argument’ does not name a kind of speech act. It follows that a definition such as the one in (Hitchcock 2007) or in (van Eemeren and Grootendorst 1984) does not correspond to a meaning of the word in natural language. If an argument is an abstract object, and not a speech act, there is no possible definition of ‘argument’ as a speech act.

following argument: “there are speech acts of promising, requesting, recommending, apologizing, and so forth. But we also have the notions of “a promise”, “a request”, “a recommendation”. Now a promise is obviously not a speech act; promising is a speech act, and a promise is what is conveyed in that speech act... I trust now that it is clear why I would not want to say that an argument1 is a speech act or any other kind of act). An argument1, like a promise or a recommendation, is something that is conveyed by that speech act.” While we agree with the conclusion of this argument, it is not so clear why he thinks the premises are true: just because *promising* is an act it does not mean that *a promise* must be something else. Sometimes we use ‘promise’ to refer to an act of promising, and ‘argument’ to refer to an act of arguing. In those cases we mean by ‘promise’ or ‘argument’ a certain kind of act.

¹⁴ Van Eemeren et al. have claimed that their definition of ‘argument’ “does not only refer to the activity of advancing arguments but also to the shorter or longer text that results from it” (van Eemeren, Grootendorst, Snoeck Henkemans 2002, p. xii).

It may be replied that although ‘argument’, as a word of natural language, does not have a speech act meaning, the *theoretical* word ‘argument’ may be defined as to mean a speech act. It may be interesting from a theoretical point of view to give a definition of the speech acts by which arguments are conveyed, and to offer a characterization of those acts. Indeed, just because the English word ‘argument’ is not ambiguous in the sense mentioned, it does not mean that there can be no interesting theoretical study of speech acts of arguing. A definition of ‘argument’ as speech act could be useful as part of that study. The theorist is free to choose both her object of study and the terminology she wants to use. However, it would be a bad theoretical move to use ‘argument’ ambiguously. We could simply have two theoretical terms, such as ‘argument-o’, to name a certain kind of abstract object, and ‘argument-p’, to name the speech act by which the former is conveyed. More importantly, the theorist should not confuse her stipulative definition of ‘argument’, corresponding to some interesting concept within the theory, with a characterization of the meaning of a natural language term. And the disagreement in the literature on argumentation is surely not about some stipulative definitions. It is the meaning of the natural language word ‘argument’ that definitions offered in the literature try to capture, and not the meaning of a term within some theory or another. And it is about the former that the claim of an act/object ambiguity is being made. If the natural language word is not the name of a kind of speech act, then we should not feel tempted to define it as such.

7. Platonism about arguments

In the remainder of the essay we develop an account of arguments as abstract objects that is compatible with our common talk and thought about arguments as things that can be produced and as things that can be known. Regarding arguments as abstract objects suggests some version of Platonism about arguments. Thus, we begin with an explanation of what Platonism about arguments involves. We contend that Platonism about arguments has difficulty addressing the problems of how we can produce and how we can know arguments. We propose some modifications to Platonism about arguments and call the resulting view *realism* about arguments. We provide an account of the identity conditions of argument that shows how arguments can be understood as temporal abstract objects that are knowable productions of human intellectual activity. Thus, given that ‘argument’ does not have a speech act meaning but refers to an abstract object and that an account of arguments as

abstract objects is available that is resistant to canonical difficulties that arise from positing the existence of abstract objects, there is good basis to think that arguments are abstract objects.

What would make one a Platonist about arguments? In his essay on abstract objects Bob Hale (1987) characterizes Platonism as any view that provides affirmative answers to the questions: “*Are there abstract objects? [And] if there are, do at least some of them, enjoy a mind-independent existence?*” And also provides a traditional answer to the question “*what sort of knowledge do we have of them*” (Hale 1987, p. 1).

Answering affirmatively to the first of Hale’s questions involves claiming that there are abstract objects. Claiming of some object that it is abstract is typically thought to involve the claim that the object is non-spatiotemporal. A natural number, for instance, is typically conceived as neither having spatial nor temporal extension. Answering in the affirmative to Hale’s second question involves claiming that some abstract objects are not dependent on the existence of an intelligent mind. Again, it is often thought that the natural numbers have just this sort of mind-independent existence. While *awareness of the fact* that $2+2=4$ requires some intelligence, *the fact* that $2+2=4$ is grounded in the nature of the abstract objects themselves. In regards to Hale’s third question a variety of answers could reasonably stake a claim to being traditional Platonist answers. However, the answer that we take to be most characteristic of a traditional Platonists approach to our knowledge of abstract objects involves postulating some kind of perception-like faculty through which we can access the abstract realm. For instance, traditional Platonists about mathematics such as Kurt Gödel famously claimed that while mathematical objects are mind-independent we nonetheless have a capacity to become aware of them. Gödel states “despite their remoteness from sense experience, we do have something like a perception . . . of the objects of set theory, as is seen from the fact that the axioms force themselves on us as being true” (Gödel 1983, pp. 483-484). And, more recently, Penelope Maddy (1980) has proposed a development of Gödel’s view in which sets are objects to which we have perceptual access.

One thing worth noting about Hale’s characterization of Platonism is its domain generality. It is not at all clear that, having answered the above questions in a fashion satisfying to the Platonist, what one would be a Platonist about. One may very well answer the first two questions affirmatively and the third one in a way favorable to the traditional Platonist and think that the only case of abstract mind independent objects are mathematical objects. However, it is also possible that, in addition to

thinking that mathematical objects are abstract, one could also think that moral entities are abstract. Indeed one may very well think there are several different sorts of abstract, mind-independent objects that can be known through a perception-like faculty.

While Hale's characterization of Platonism is domain general it can provide us with guidance as to how we can determine whether some theory is a Platonist theory of a particular domain. If the theory posits, for instance, mathematical objects that are non-spatiotemporal, mind-independent and known in a way characteristic of traditional Platonism, then it would be reasonable to claim that one is a Platonist about mathematics. Similarly, if one were to think that moral properties are non-spatiotemporal, mind-independent, and known in a way characteristic of Platonism, then one would be a Platonist about moral properties.

We understand Platonism about arguments to be a view that takes arguments to be non-spatiotemporal abstract objects that are mind independent and known through a perception-like faculty. This conception of Platonism about arguments is developed in analogy to traditional Platonist views in the philosophy of mathematics such as Gödel and Maddy's.

One problem that a Gödel-Maddy style Platonism, or as we call it traditional Platonism, about arguments would face is how to reconcile the view that arguments are mind-independent and atemporal with a causal requirement on knowledge.¹⁵ A causal requirement on knowledge holds that an attribution of knowledge to some agent *X* of some proposition *S* is correct only if "some causal relation obtain[s] between *X* and the referents of the names, predicates, and quantifiers of *S*" (Benacerraf 1983, p. 412). Motivation for the correctness of a causal requirement on knowledge arises in considering how we challenge the claim that "*X* knows that *p*." Presuming that *p* is true and that *X* has typical inferential abilities, in order to establish that *X* cannot know *p* we are left to

arguing that *X* could not have come into possession of the relevant evidence or reasons for *p*: that *X*'s four-dimensional space time worm does not make the necessary (causal) contact with the grounds of the truth of the proposition for *X* to be in possession of evidence adequate to support the inference. (Benacerraf 1983, p. 413.)

¹⁵ This problem is reminiscent of Benacerraf's (1983) dilemma for the philosophy of mathematics. Benacerraf points out that any account of mathematical truth that parallels an account of empirical truth is difficult to square with a causal theory of mathematical knowledge.

Such a requirement on knowledge is hard to square with traditional Platonism. If arguments are atemporal and mind-independent objects it is difficult to conceive how agents could come to have the appropriate causal interactions with such objects that would be necessary to facilitate knowledge. Simply postulating a Gödel-Maddy style perception-like faculty does not do the trick on its own. It must be explained how this perception facilitates access to objects that are different from the spatiotemporal objects with which we have familiar sorts of causal interactions.

Another problem that a traditional Platonism about arguments faces is that it strikes us as being incompatible with a certain natural way of thinking and talking about arguments. We often make statements such as “Searle developed the Chinese room argument” or “Gaunilo formulated a compelling counterargument to Anselm’s ontological argument.” We have a strong intuition that through human intellectual activity it is possible for us to create and produce original arguments. If traditional Platonism about arguments is true, however, then arguments would be mind-independent, non-saptiotemporal objects and these features of them would be difficult to square with the idea that they are creations of the human mind.

One possible way of responding to these problems would be to adopt a more minimal version of Platonism. In fact, while Hale thinks that a Platonist will contend that some abstract objects are mind-independent, he also thinks that it is a mistake to presume that all abstract objects should be understood as mind-independent. A story, for example, is an abstract object on Hale’s account and, since it owes its existence to mental activity, a story is, in a real sense, a mind-dependent entity (Hale 1987, p. 2).

Another way to augment this response would be to further contend that abstract objects need not be both non-spatial and non-temporal. Hale states,

It is, on reflection, not clear that every kind of abstract object must be both non-spatial and atemporal. Consider for example, chess, or the English Language, or any word (in the type as distinct from the token sense). These may plausibly, and indeed have been, taken to be abstract objects. No doubt games and languages are non-spatial. The crucial question is are they atemporal? It seems not. Chess and English, unlike the natural numbers or sets, have their histories. They came to be at certain more or less definite times. (Hale 1987, p. 49.)

If any abstract objects are non-spatiotemporal it is likely that mathematical objects are. Consider mathematical objects, such as the cosine function, or the Pythagorean Theorem. It makes no sense, claims the Platonist about mathematics, to ask “when did the cosine function come into existence?” Now consider the game of chess. Gideon Rosen (2001) writes: “Some philosophers take the view that chess is like a mathematical object in these respects. But that is certainly not the most natural view. The natural view is that chess was invented at a certain place and time.”

One potential difficulty with this minimalist version of Platonism is that it may lead to fragmented metaphysics of the abstract in which different types of abstract objects exist in different domains.¹⁶ In some domains we might think that there are non-spatial and non-temporal abstract objects like the natural numbers and in other domains we might think that there are non-spatial, temporal abstract objects such as stories, the game of chess, and the English Language. It is unclear the extent to which a fragmented metaphysics of the abstract is plausible or implausible. However, the plausibility of such a metaphysical position is not problematic for theories that posit the existence of abstract objects in restricted domains. After all it is possible to adopt a domain specific account of abstract objects that does not commit one to the existence of a fragmented metaphysics of the abstract. Having posited the existence of a certain type of abstract objects in a specific domain one could (i) hold that all other abstract objects are of a similar sort to that posited in the domain or (ii) claim that abstract objects only exist in the domains specified (which would also entail i.) or (iii) endorse a fragmented metaphysics of the abstract. While we cannot say which of these options we favour at this point, it suffices to point out that any implausibility that one finds associated with the adoption of a fragmented metaphysics of the abstract need not attach to a domain specific view that, say the game of chess, stories, or arguments, are abstract objects. After all, the existence of abstract objects could be restricted to this type of abstract object or even to the domains mentioned.

In what follows we propose a non-Platonist alternative we call *realism* about arguments. We understand arguments to be abstract in a fashion akin to games of chess, musical compositions, languages and other objects of that ilk. We defend the realist conception of argument on the grounds that it is not subject to the same weaknesses as Platonism about arguments. That is, we think that a realist account of argument is compatible

¹⁶ This issue is raised by Goddu (forthcoming).

with our talk and thought about arguments as human creations and as things that we can know.

8. Realism about abstract objects

So far our discussion of Platonism about arguments has lead us to the following characterization of that position. A Platonist about argument is committed to the following three claims; (i) Arguments are abstract objects, (ii) arguments are mind-independent, non-spatiotemporal, objects and (iii) arguments are known through a perception-like faculty. We discussed two problem faced by Platonism about arguments. First, there are problems for understanding how arguments can be produced or created by human beings. Second, there are problems raised for how Platonism about arguments could be squared with a causal requirement on our knowledge of arguments. In response to these problems we proposed a non-Platonistic account of arguments as abstract objects that we are calling realism about arguments. Realism is only committed to (i) above and not to (ii) and (iii). Thus, in order to defend our alternative we need to make three arguments. Firstly, we need to defend (i) with a case for the claim that arguments are indeed a sort of abstract object. Secondly, we need to show that arguments are either spatial, or temporal, or mind-dependent and can be known in a manner that does not employ any peculiar perception-like faculty. That is to say, we need to show that realism denies (ii) and does not need to endorse (iii).

What grounds do we have to think that arguments are abstract objects? In the first 6 sections of this essay we made a case for the view that ‘argument’ does not refer to a speech act, but to the content of a speech act. What positive reasons, however, do we have to think that arguments *abstract*? One serious difficulty with making an argument that supports (i) is that there is no clear and established method of drawing a crisp distinction between the concrete and the abstract. One only has to peruse the variety of alternative accounts of how to draw that distinction explained in Rosen (2001) or in Hale (1987, pp. 45-67) to see the difficulty in clearly specifying the abstract/concrete distinction. However, arguments, such as the game of chess or a musical score can be spatially separated without being temporally separated. By showing that arguments share this characteristic with these objects we think there is a good basis to understand arguments to be abstract objects.

Games, musical compositions, and languages all have their unique histories. They develop in time and became the game, score, or language we know today. Thus, given the

temporality of these entities, on a traditional Platonist model of abstract objects they would not properly be classified as abstract. One reason to think that such entities are abstract is that they can be spatially separated without being temporally separated. The game of chess can be played in many spatially separate regions at the same time. In fact the odds are good that the game of chess is currently being played in several different locations. The same is the case with *Mozart's Requiem*. This observation about how to distinguish abstract objects from concrete objects is most clearly visible when considering the distinction between type-letter and token-letter. Hale points out that “*a* cannot be the same token-letter as *b* if *a* and *b* have distinct spatial locations at the same time, whereas *a* may perfectly well be the same type-letter as *b*, though differently located from it” (Hale 1987, pp. 56-7). And while it is not clear that the relationship between two particular games of chess and *the game of chess* is exactly the same as the relationship between two particular instances of the letter ‘*a*’ and the letter *a*, it is clear enough that the game being played on board one can be the same game as the game being played on board two. Any adequate account of the identity-conditions of, for example, *game*, *musical score* or *story* “will provide for the possibility of the same game or story being played or told in different places at the same time. Thus chess . . . , pieces of music, games and stories . . . will, in consequence, qualify as abstract on our account” (Hale 1987, pp. 65). Hale says of this method for distinguishing the abstract from the concrete that,

Here we have the markings of a general distinction which respects the large measure of truth residing in the thought that abstract objects are non-spatial and atemporal, but which does not, unlike that unrefined proposal, fall foul of the fact that some kinds of abstract object are not wholly ‘outside’ time.”¹⁷ (Hale 1987, pp. 56-57.)

¹⁷ In spite of this quotation Hale (1987, pp. 57-63) is not satisfied with spatial but not temporal separation as being the criterion for distinguishing the abstract from the concrete. Hale, however, uses this characteristic to develop a criterion that will facilitate such a distinction. It is necessary to refine the method for distinguishing between the abstract and the concrete so as to avoid the problem of classifying certain obviously concrete relations such as “being the father of” as abstract and to ensure that we include objects such as sets and numbers that are both non-spatial and atemporal in the realm of the abstract. As far as we can tell these difficulties do not pose a problem for our purposes since all of the refinements Hale makes to his criterion for distinguishing the abstract from the concrete involve the notion that objects that are spatially but not temporally separated are classified as abstract. Also, on all of the more developed formulations of the criterion that are discussed by Hale, arguments will turn out to be abstract objects.

There is a natural sense in which arguments fit into this category of objects. When referring to, for instance, *Anselm's ontological argument*, or *Searle's Chinese room argument* we are referring to one argument that could be expressed in distinct locations. For instance, the same argument could be expressed both on page 75 and at the same time on page 132 of the textbook. Similarly it is possible for undergraduates to hear Anselm's argument expressed at the University of Waterloo in Canada at the same time that a different batch of undergraduates hears the same argument being expressed at the University of Salamanca in Spain.

9. Identity-conditions for argument

In the last section we made a case for understanding arguments to be abstract objects like games, stories, songs, and languages that can be spatially yet not temporally separated. Arguments, just like games, stories, and songs, can be expressed at the same time at different locations of space. This raises a question about the identity-conditions for argument. How can we determine if the same argument is in fact being expressed at spatially divergent locations?

As a start to answering this question we will consider the identity conditions for argument proposed by Mark Vorobej (2006) and then propose some refinements to them. Vorobej (2006, p. 9) asks us to consider the following two passages that he claims "could express the same argument,"

- (A) 5 is a square root of 25. Therefore, 25 is not a prime number.
- (B) 25 is the square of 5. It follows that 25 is not a prime number.

Vorobej claims that,

A necessary condition of two persons offering the same argument is that they infer the same conclusion from the same set of premises. A further necessary condition is that they employ the same inference. (That is, if two individuals argue that the same conclusion follows from the same set of premises, but if they disagree about *how* it follows, then they cannot be offering the same argument). Together these conditions are jointly sufficient. So the author of (A) offers the same argument as the author of (B) provided they agree upon how the proposition that 25 is not a prime number

follows from the proposition that 25 is the square of 5.
(Vorobej 2006: 9)

Thus, we propose the following formulation to capture Vorobej's identity conditions for argument:

Argument A is identical to argument B iff:

- (1) An agent offering argument (A) infers the same conclusion from the same premises as an agent offering argument (B).
- (2) An agent offering argument (A) employs the same inference as an agent offering argument (B).

One thing to notice about Vorobej's identity conditions is that there are two distinct sorts of conditions. There is a premise and conclusion identity-condition and an inferential identity-condition. We think that there are problems with both conditions. One problem that applies to both conditions is that an argument does not need to be *offered* by any agent in particular. Arguments can be mentally entertained without ever being offered in any discourse. Moreover, some arguments in a discourse might not be arguments that the agent ought to be understood as offering at all. In fact, the agent might fundamentally disagree with some argument and have no intention of offering the argument to an interlocutor with whom they are having a discussion. Nevertheless the agent may find communicative purpose in *mentioning* the argument. Thus, the identity conditions for argument ought not to be restricted to an agent offering an argument. A second problem is the reference to the argument's premises and conclusions in (1). We want to be clear that it is the propositions that compose the arguments that are the same in two expressions of one argument and, thus, we propose to replace reference to premises and conclusions with reference to propositions. Finally there is a problem specifically with (2). It is important that the inferential condition is not formulated in a way that is too narrow. In particular it will be important that the inferential condition does not exclude from the class of arguments bad arguments that have no inferential relation or even a relevance relation (e.g. the red herring fallacy). Since in bad arguments an inference may be intended even though none is, in fact, employed (2) is not sufficient to determine identity in these cases. Furthermore, once our identity conditions no longer talk of an agent employing an inference it will be important that the inferential condition is not formulated in a way that is too broad. Imagine a story in which there is a set of propositions identical to a set of propositions in some argument. Further imagine there is an inference (such as an

entailment) between these propositions. In the case of the story, however, no inference is intended and, thus, there is no argument. It will be an important adequacy condition of any identity conditions for argument that they do not exclude bad arguments and including non-arguments.

What we are after in (2) is some way of capturing an identical illative relation between two arguments. The illative relation is expressed in an argument by words such as ‘since,’ ‘so,’ and ‘therefore.’ However, it is important to note that this relation is not equivalent to some subset of words used in expressing an argument, but with the relation that those words express. Hitchcock writes that a simple argument is a sequence of three objects: "a speech act *c* of any type concerning some proposition, an *illative such as the word "since"* (in its inferential sense), and a set *P* of one or more assertives" (Hitchcock 2007, p. 6 italics added). However, the illative relation cannot be one word because sometimes more than one word is used and in other cases no words are used; for those cases Hitchcock says: "Arguments with no explicit illative can be regarded as having one implicitly" (Hitchcock 2007, p. 6). So, according to Hitchcock, there are some implicit words in arguments with no explicit illatives. But, if no word was actually uttered, which illatives were implicated? There seems to be no principled way to choose one premise or conclusion indicator and not another. Why ought we to choose ‘since’ as opposed to ‘given that?’ Another difficulty is that it does not make sense to talk of words being conveyed implicitly but only of *contents* being conveyed implicitly. Words are used in communication to convey contents explicitly. If some words are missing, content can still be conveyed, but only implicitly. A further point against saying that the illative relation is a word is pointed out by Goddu. Goddu writes that Hitchcock's talk of implicit illatives "seems ad hoc if the indicators or the illative use of the indicator is supposed to be part of the argument. A better account of the fact that there can be an argument, but no explicit indicator is that the presence or absence of the illation relation does not depend on the presence or absence of the indicator" (Goddu 2009, p. 4).

We will understand an illative relation as an *intended inference* relation. That is to say, the illative relation is the type of inference that an agent intends to be made from an argument's premises to an argument's conclusion. In less precise terms it is the way an agent intends a proposition to follow from some other propositions in an argument. This understanding of the illative-relation is due to the observation that a set of propositions *S* becomes an argument just when some agent intends to infer some member of *S* from the other

members of S in accordance with a rule of inference. Thus, we get the following identity conditions for illative relations:

For sets of propositions S and T , and for propositions p and q , the illative relation I between S and p is identical to the illative relation R between T and q if and only if an agent A intends that p be inferred from S in accordance with the same rule of inference that an agent B intends q to be inferred from T in accordance with.¹⁸

This identity condition for illative relations allows us to capture the intuition that two different arguments (say arguments with different premises or a different conclusion) in which the premises are intended to classically entail the conclusion according to the same inference scheme (say *modus ponens*) possess the same illative relation. We can also explain how two arguments with the same premises and conclusions are different arguments if the conclusion is intended to follow abductively in one argument and, say, inductively in another. Consider the following propositions about a bag of which we know that several red and several white balls have been placed inside.

1. I have drawn 5 red balls from the bag and only 1 white ball.
2. Therefore, there are more red balls in the bag than white balls.

This argument could be an induction. An arguer could intend that the conclusion follow inductively on the grounds that the sample of draws justifies the generalization found in (2). An arguer could also intend the inference to be abductive. That is to say, the arguer could intend the conclusion to be justified on the grounds that it best explains why more red balls were drawn than white balls. If two arguers intend the conclusion be inferred in accordance with an induction, then the argument would have the same illative relation. However, if one arguer intended to infer the conclusion with an abductive rule of inference and the

¹⁸ What makes one rule of inference the same as another is an issue that we cannot get into. Suffice it to say that it ought to be possible for one person to intend that a conclusion follows in accordance with the same rule of inference as another person intends a conclusion to follow in accordance with. There are, however, many interesting complications. For instance, is a dedicated monist about classical logic using conjunctive detachment in classical logic making the same inference as a dedicated monist about intuitionistic logic using a conjunctive detachment in intuitionistic logic? What would make two rules of inference the same or different? In other words, what exactly are the conditions of identity for rules of inference?

other with an inductive rule of inference, then the arguers would be making two different arguments.

The previous considerations give us the following identity conditions for argument:

Argument A is identical to argument B iff:

- (1) The propositions that are part of argument A are the same as the propositions that are part of argument B.
- (2) The illative relation(s) in argument A is (are) identical to the illative relation(s) in argument B.
- (3) The illative relation(s) in argument A is a (are) relation(s) on the same proposition(s) as the illative relation(s) in B is a (are) relation(s) on.¹⁹

Earlier we had said that an important adequacy condition for the identity conditions for argument was that they are not too narrow, and do not excluded bad arguments, and are also not too wide, and do not include non-arguments such as stories. These conditions, as far as we can tell, satisfy this adequacy condition. In some bad arguments an agent will intend a certain inference from the premises of the argument to the conclusion even if no inference is actually present. Thus, if someone were to intend the exact same inference from the exact same premises to the exact same conclusion, then they would be making the same bad argument. Moreover, these conditions do not include non-arguments such as stories since in a story no inference is intended.

Also note that these identity conditions for argument permit arguments to be expressed in different places at the same time. While Vorobej claims that arguments are partially abstract objects on the grounds that the propositions that compose arguments are abstract objects (Vorobej 2006, p. 8), in our effort to establish that arguments are abstract we are going to focus on the illative relation. We contend that this relation is created by an agent when the agent intends that a conclusion follows from a set of premises in a certain way. Consider the set of propositions that are part of an argument. Until there is a specific sort of relation formed on that set by an agent intending that the conclusion be inferred in a certain way from the premises, there is no argument. In fact, it is possible that that set might never have the right sort of relation formed on it for it to become an argument. Let's speculate that Anselm chose not to pursue a career in philosophy and theology and instead decided to enter the lucrative trade of metal crafts. Instead of thinking about the

¹⁹ The bracketed plurals are intended to accommodate linked arguments that have more than one conclusion and more than one illative-relation.

existence of God his mind would be occupied with matters less divine. In this speculation Anselm never intends an inference from the propositions he used as premises in the ontological argument to the conclusion “God exists.” It would be a stretch to contend that in this alternate reality *Anselm’s Ontological Argument* exists (especially if no one else conceived it). Therefore, we conclude that an argument’s existence depends on an agent relating some set of propositions S to another proposition p by intending that p be inferred from S in accordance with a rule of inference. And, since this intention to infer comes into existence at a certain time, arguments are temporal and are produced by human beings. *A fortiori*, given that arguments are formed by human cognitive activity, arguments are not mind-independent. In a very real sense their existence depends on the mental activity of the agents who formulate them. Finally, lest one be concerned that *Anselm’s Ontological Argument* be a concrete object, this very same argument, as mentioned earlier, can be expressed today in a place spatially distant from the place Anselm first formulated it, and it can be expressed today in more than one place at the same time. All that is required is that some agent intends the conclusion of Anselm’s argument to follow from the premises of Anselm’s argument in just the way that Anselm intended it to follow. We can conclude given the above considerations that arguments are temporal abstract objects that can be created by the human intellectual activity.

Notice that we have now addressed the worry that an account of argument as abstract object could not fit with our talk of arguments as human intellectual creations or productions. On our account, arguments are created when an agent forms an intention to infer, in a certain way, a proposition from some other propositions. Thus, on our conception of argument as abstract objects, there is no mystery in statements such as “Anselm developed the ontological argument”, or “John made a very clever argument” and so on.

10. Knowledge of arguments

At this point we have discharged two of our argumentative obligations. We have shown (i), that arguments are abstract objects. We have also shown that it is not the case that (ii). That is, we have shown that arguments are not mind-independent and atemporal. We have done this by showing that arguments are mind-dependent and temporal abstract objects. We have yet to demonstrate that there is not some mysterious perceptual faculty that is needed in order to have knowledge of arguments and

thus, we have not explained why realism need not rely on (iii). It is not possible to here formulate a developed theory of how we acquire knowledge of arguments. However, this is not needed for our purposes. What we do need to illustrate is that the states of affairs that make statements about arguments true have appropriate sorts of causal interactions with agents such that agents could know them. Hale claims that to possess knowledge of abstract objects,

It will be enough if we can come to know the truth values of statements which . . . involve reference to such objects. This will be consistent with any reasonable demand issuing from the causal conception of knowledge, provided that we are able to see the states of affairs in virtue of which such statements are true or false as situated within the ‘causal swim.’ (Hale 1987, p. 84.)

Thus, if the states of affairs that make statements about arguments true are within the ‘causal swim’—that is, if the state of affairs are situated in the everyday world of causal interactions that we are familiar with—then that will satisfy any causal requirement on our knowledge of arguments. Thus, in order to satisfy the causal requirement, we need to specify non-problematic states of affairs in virtue of which statements in which ‘argument’ figures as a singular expression are true or false. Given our identity-conditions for argument the states of affairs that will make statements about arguments true or false involve facts about an agent’s intentions. Intending a proposition be inferred from another propositions in a particular way is a common phenomenon that is caught up in the ‘causal swim’. There are facts of the matter that are based on an agent’s mental states that determine what an agent’s intentions are. If Anselm intended the premises of his argument to provide inductive grounds for the conclusion “God exists,” then what we have come to call *Anselm’s Ontological Argument* would not actually be identical to the argument Anselm gave since in what we call *Anselm’s Ontological Argument* we do not intend the conclusion to follow inductively from the premises. Thus, states of affairs in virtue of which statements about arguments are true or false are not somehow outside the causal swim. We can have direct cognitive acquaintances with these states of affairs. It, therefore, seems reasonable to think that, given our identity conditions for argument, it is possible to satisfy the demands of a causal requirement on knowledge.

11. Conclusion

Our paper has accomplished two distinct tasks. First, we made the case that ‘argument’ is not ambiguous between, on the one hand, a speech act meaning and, on the other hand, an object meaning. Rather we contended that ‘argument’ has an abstract object literal meaning. The view that arguments are abstract objects faces some important objections. Since abstract objects are often thought of as mind-independent, non-spatiotemporal objects there are difficulties accounting for how we could create arguments, and there are difficulties accounting for how we come to know arguments. The second task we accomplished in this essay was to develop an account of arguments as abstract objects that addressed these difficulties. The account we developed understands arguments to be objects that can be expressed in different points of space at the same time and that are creations of human intellectual activity. We think that given (i) our positive account for why ‘argument’ refers to an abstract object, and that (ii) we have developed an account of arguments as abstract objects that addresses the major concerns that such a view encounters, there are solid grounds to take seriously the idea that arguments are abstract objects.

Acknowledgements

We would like to thank Geoff Goddu for his comments on this paper at the Ontario Society for the Study of Argumentation conference, Cognition and Community, in May 2011. We would also like to thank Jean Goodwin, Erik Krabbe, Trudy Govier and Francisca Snoeck Henkemans of the Blair Prize committee. We have special thanks for Robert Pinto and Ralph Johnson and the other members of the audience at the OSSA 2011 conference who helped us with insightful remarks. We would also like to thank Dave DeVidi of the University of Waterloo for helpful comments on an earlier draft.

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