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LOGICAL RELATIONS BETWEEN PICTURES

It is generally assumed that logical relations are relations between sentences, logical formulae, or propositions. All of these are linguistic objects; obviously in the case of sentences or formulae, plausibly so in the case of propositions if these are conceived of as collections of sentences "saying the same thing." The linguistic or descriptive mode is one major way of representing the world, but not the only (and perhaps not even the most important) one. Another major mode of representation is depiction. It represents not by sentences or formulae but by paintings, drawings, sketches, engravings, maps, diagrams, or photographs.

To the best of my knowledge, no one has ever inquired into the logical relations between depictions. This is peculiar, for assuming that logic is a general theory of certain fundamental relations between our representations of the world it is hard to see why it should only apply to one class of representations and not to another one. I think there are two main reasons for this peculiarity.

First of all it is often assumed that logical relations could only hold between objects with a transparent syntactic structure. If implication is seen to be a relation between two formulae, holding if it is possible to transform the first into the second using a fixed set of rules (as in a natural deduction system), then the restriction to descriptive forms of representation is obviously implied. Paintings, drawings, and so on do not have fixed syntactic structures; they are not composed from a fixed set of primitive symbols by a collection of formation rules.[1]

[1] Indeed Nelson Goodman takes this to be the fundamental distinction between linguistic and nonlinguistic systems of representation. See *Languages of Art* (Indianapolis: Hackett, 1976), pp. 225–32.

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Second, common opinion holds that logical relations are only applicable to truth-bearing items. If implication is semantically understood to be the relation holding between two items such that whenever the first is true, the second must be true as well, we can only consider extending this to depictions if we assume that these, like descriptions, can be true or false. There are a number of problems associated with this idea, as noted by Jerry Fodor.[2] When is a picture of a cat on a mat true? If there is some cat on some mat? Or does it have to be a fat cat, as in the picture? Or the very cat pictured? Does it have to be the very same mat? The difficulty of answering these questions does not let pictures appear as the most natural truth-bearers. But in this case there cannot be an implication relation between them, semantically understood.

Both of these assumptions—that implication relations only hold between syntactic items, and only between truth-bearers—are false. A perspicuous demonstration of this has been given in Arnold Koslow's development of a structuralist theory of logic.[3] He defines an implication structure as *any* collection of objects (which have to be neither syntactic nor truth-bearing) on which an implication relation obeying a set of Gentzen-style conditions can be established. Logically complex objects are then defined in terms of this relation. The conjunction of two objects *A* and *B*, for example, is taken to be the weakest object *C* such that it implies *A* and it implies *B*. (By 'weakest', we mean that if any other object also implies *A* and *B*, it will also imply *C*.)[4] It then remains to be demonstrated that the objects so defined really have the properties ascribed to logically complex objects such as conjunctions, disjunctions, negations, and so on.

One peculiarity of Koslow's system is that collections of objects are not usually logically closed. Frequently logical complexes of objects from the collection will fail to be included in it. For example a collection with only *A* and *B* in it will fail to contain a conjunction of the two if they are not mutually entailing. This is due to the fact that the structuralist theory defines the implication structure on a fixed set of objects; logical complexes are then identified with particular objects from this collection. This is no fundamental limitation, however.[5] The

[2] See Fodor, *The Language of Thought* (Cambridge: Harvard, 1975), pp. 174–94.

[3] See Koslow, *A Structuralist Theory of Logic* (New York: Cambridge, 1992), and "The Implicational Nature of Logic: A Structuralist Account," in Achille Varzi, ed., *The Nature of Logic* (Stanford: CSLI, 1999), pp. 111–55.

[4] This account cuts a number of corners. For the full details, the reader is referred to Koslow's *A Structuralist Theory of Logic*.

[5] In fact, it might be important to allow for the possibility that logical operations are not always defined for all items under consideration. See Dana Scott, "Background to

collections can always be expanded so as to include the required logical complexes.

In the following, I want to use the structuralist theory of logic to develop an account of logical relations between pictures. I will describe an implication relation between pictures and argue that it obeys the conditions mentioned by Koslow. It is then possible to give precise definitions of conjunctions, disjunctions, negations, and so on, of pictures. It will also turn out that these logical operations are closely related to or even identical with basic cognitive operations we naturally employ when thinking about pictures. Before this can be done, however, it is necessary to discuss two preliminary matters: the nature of the type-token distinction in the case of pictures and the relationship between a picture and its parts.

I. PRELIMINARIES

I.1. Pictures and Paintings. Pictures differ from paintings as propositions differ from sentences. Paintings (as well as drawings, sketches, engravings, and the like) and sentences are tokens: spatiotemporally located physical objects. Different paintings can show the same picture, and different sentences can express the same proposition. Pictures and propositions are what particular sets of paintings or sentences have in common, they are therefore not tokens but types.[6] Relative to some set of conventionally defined criteria we regard certain paintings as showing the same picture, and certain sentences as expressing the same proposition. What these criteria are in each particular case is notoriously hard to define, and it is very likely that no analysis of the type-token relation in terms of necessary and sufficient conditions we give will ever be satisfactory. This is, however, not a problem the present discussion will address; we will simply take the type-token distinction for visual representations as primitive.

In discussing the logical relations between visual representations, it seems evident that we should concentrate on types (on pictures) rather than on tokens (on paintings). Although it would be foolish to expect an implication relation between visual representations to be in every respect similar to the implication relation between propositions familiar to us from logic, this is certainly a plausible point of depar-

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Formalization," in Hughes Leblanc, ed., *Truth, Syntax, and Modality* (Amsterdam: North-Holland, 1973), pp. 244–73, and "Completeness and Axiomatizability in Many-valued Logic," in Leon Henkin, ed., *Proceedings of the Tarski Symposium* (Providence, RI: American Mathematical Society, 1974), pp. 411–35.

[6] Whether to conceive of pictures and propositions as abstract objects or in terms of naturalistically more acceptable constructions from paintings and sentences is of little consequence for the present discussion.

ture for investigations into implication relations with other kinds of relata. As such we want to conceive of an implication relation between visual representations as a relation between what various collections of such representations "showing the same thing" have in common, rather than as a relation between the physical objects which are the basis of the showing or representing. We will therefore look at logical relations between pictures, not between paintings.

Note that due to the greater abstractness of pictures, there are some questions concerning them which do not have definite answers, even though the same questions asked about a painting instantiating them do have such answers. If we consider Botticelli's 1489 painting of the *Annunciation* (the tempera-on-wood object in the Uffizi) we can ask, for example, what kind of red pigment was used for Mary's cloak, or what the diameter of her halo is. The same cannot be asked about the *picture* of Botticelli's 1489 *Annunciation*, as the examination of various instances of the picture (a copy painted in oil on canvas, a postcard, an image on a computer screen) delivers radically different answers. This phenomenon can also be observed if we speak just of the picture of the Annunciation, rather than of Botticelli's. Whereas it makes perfectly good sense to ask about either the painting or the picture of Botticelli's *Annunciation* whether the angel approaches Mary from the left or the right, the same question is meaningless when asked about the picture of the Annunciation as such. (In the majority of cases the angel comes from the right, but not always.) It can therefore happen that we have a precise idea of what a picture depicts (Mary being visited by an angel) without having a fixed opinion on the spatial arrangement of some of its constituents.[7]

It is interesting to note in this context that Daniel Dennett assumes that "the rules of images in general" (where photographs and paintings are subsumed under images) exclude the lack of specificity just indicated.[8] It may be the case that the rules of *paintings* in general forbid such underdetermination regarding color, size, composition of parts, and so on, but it appears to be inadvisable to extend this to images or pictures.[9] Of course one would want to assume this if, as in the case of Dennett, the plan is to use this "rule" to argue that mental

[7] The same considerations apply when comparing a particular inscription of the fifth commandment, the proposition expressed by it, and an arbitrary proposition forbidding murder.

[8] See Dennett, "The Nature of Images and the Introspective Trap," in Ned Block, ed., *Imagery* (Cambridge: MIT, 1981), pp. 51–61, on p. 55.

[9] For an argument that in fact such underdetermination can be present in pictorial *tokens*, see Michael Tye, "Image Indeterminacy," in Naomi Eilan, ed., *Spatial Representation* (New York: Oxford, 1993), pp. 357–60.

representations are description-like, rather than image-like. Dennett argues that since an imagined tiger has an undetermined number of stripes, the representation of the tiger must be like a description (which is also not forced to specify the number of stripes) and not like an image (which has to depict the tiger with some definite number) (*op. cit.*, p. 55). I think, however, that if we consider pictures instead of paintings this allegedly crucial difference in determinacy between description- and image-like representation disappears. If there is *any* difference between descriptions and pictures, Botticelli's *Annunciation* belongs to the latter. Yet as we have just seen there are various questions about this picture which do not have definite answers. That Botticelli had to give the Virgin's halo some size in the painting he painted does not imply that in the picture he thereby produced, her halo also has a definite size. Descriptions and depictions, it turns out, are both forms of representation which admit of underdetermination.

I.2. Parts of Pictures: Subpictures, Constituents, and Parts. What are the parts of a picture? The question is not as innocuous as it sounds. The mereology of ordinary objects is well developed, but pictures are no ordinary objects. First of all, they are not spatiotemporal, as we just saw. Second, they are structured: they are not like a heap of grain or a puddle of water the identity of which is preserved under various rearrangements of their parts. Pictures have parts which are put together in a certain way: if we destroy the order of the parts the picture is gone. Third, pictures are representational. A lego toy, a molecule, a pattern of tiles all have structure, but they do not usually represent.

While mereology deals with objects in time and space, there is no *prima facie* impossibility in extending the 'part of' relation to other kinds of things.[10] Recent mereological investigations have also started to tackle the second peculiarity,[11] while the third still remains to be addressed.

Some pictures have parts which are pictures themselves. A picture of Napoleon with a hat has a part which is the picture of a hat. So much is uncontroversial. But what about parts of pictures which are not themselves pictures? Here we are faced with two alternatives. First, we can conceive of pictures as arrangements of atomic colored pixels of arbitrarily small size on a plane.[12] Then any pixel and any fusion of an arbitrary collection of pixels from the picture of Napoleon's hat

[10] For example, one might regard the prime factors of a number as its parts. An application of mereology to such categories as properties or states of affairs can be found in Uwe Meixner, *Axiomatic Formal Ontology* (Boston: Kluwer, 1997).

[11] See Peter Simons, *Parts: A Study in Ontology* (New York: Oxford, 1987), p. 324.

[12] Note that this conception does not just confuse pictures with paintings. The picture would be taken to consist of pixels in the same way in which a water molecule

will be a part of the picture, in the same way as each hydrogen and each oxygen atom contained in it, as well as any arbitrary fusion of such atoms will be a part of a given puddle of water. Second, we may think of the hue, saturation, and brightness of the color of Napoleon's hat, its outline, the shading, and so on, as parts of the picture of the hat. I think the second conception is to be preferred to the first. Here is why.

Consider the sense in which states of affairs can be taken to have parts. It is straightforward to argue that the state of affairs that John loves Becca has John as a part. But it is equally straightforward to argue (by the transitivity of parthood) that John's brain is part of the state of affairs that John loves Becca. Metaphysicians generally agree that there is an important difference between these two kinds of parts, a difference which is sometimes expressed by calling the first but not the second kind "constituents" of states of affairs. It is important to see what the difference between these two kinds is. A state of a affairs is a part of the world we pick out via a certain linguistic description ('John loves Becca', 'John liebt Becca', *Ljb*, and so on) and to which we ascribe a certain structure mirroring the form of the part of language we use to pick it out (the standard analysis is that the state of affairs that John loves Becca consists of two individuals and a dyadic relation). The constituents of the state of affairs are now precisely those parts which we use in conceptualizing this bit of the world; the elements which we take to correspond to the bit of language we use to identify it. But the mere parts (John's brain as opposed to John) are just *any* parts of that particular bit of the world we happen to be talking about, whether they take part in our conceptualization or not. In analyzing a state of affairs we therefore have to concentrate on its constituents, on the parts we actually use in thinking about this subsection of the world, rather than on any arbitrary collection of parts it happens to have. States of affairs are parts of the world which the human mind has sliced, and in investigating them we have to concentrate on the cuts the mind has made, rather than on any other fissures we may otherwise observe in the material.

A very similar situation confronts us in the case of pictures. These too are human creations. As such the outline, saturation, brightness,

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consists of hydrogen and oxygen atoms. Different water molecules will have quantitatively distinct atoms as parts, but they will all belong to the same type of atom. In the same way the pixels, the parts of a picture can be different physical objects in the different physical realizations of a picture (they can be fragments of paint, drops of ink, or pieces of colored glass) but still all belong to the same type of pixel. A pixel, like a particular kind of molecule, is no token but a type.

hue, and so on, of a picture are more important in investigating them than arbitrary collections of pixels which happen to be parts of the picture. A picture is a representation which has been constructed by combining a certain outline with certain colors, certain shadings, and so on, rather than a collection of pixels which has been put together bit by bit. A collection of pixels from a picture of Napoleon's hat tells us no more about its role as a representation than the part of the state of affairs that is John's brain tells us about its role as a part of the world picked out by a particular linguistic description.

In the following investigation, we will therefore concentrate on constituents of pictures, rather than on their parts. Neither constituents nor parts are pictures themselves; if we want to refer to pictures which are contained in pictures we use the term *subpicture*. Note that constituents of pictures—unlike parts or subpictures—are not objects which can exist on their own: we cannot present an outline without a color, or a color without a shape. The constituents of a picture are ontologically dependent on one another.[13] Furthermore, as the reader is invited to check, all three kinds of parts of pictures are subject to the standard mereological axioms; the subpicture-, the constituent-, and the part-relation are reflexive, transitive, and antisymmetric.

One complication we should note, however, is that collections of pixels from a picture can fail to be either a part or a subpicture. They fail to be a part because they are a picture themselves, and they fail to be a subpicture because they are not contained in the picture.

To see how this can be the case consider the closely related case of sentences. Not every part of a sentence (string of symbols contained within it) which is a meaningful expression is also a constituent of that sentence. It must also be a meaningful expression *which is constitutive of the meaning of the entire sentence*. For example, in the sentence 'to you fall the rewards' the part 'you fall' is meaningful, but its meaning is not part of the meaning of the whole sentence and thus not a constituent.[14] Similarly, to use an example of Stephen Pinker's, the expression 'sex with Dick Cavett' is a constituent of the sentence 'the TV show discussed sex with Dick Cavett' only on one of its two possible readings.[15]

[13] The same is true of constituents of states of affairs: individuals depend on properties they instantiate, properties depend on individuals as instantiators. They are abstractions from states of affairs, but not things which could exist independently, outside the context of a state of affairs.

[14] This example is from Elliott Sober, "Mental Representation," *Synthese*, XXXIII (1976): 101–48, on p. 122.

[15] See Pinker, *The Language Instinct: The New Science of Language and Mind* (New York: Penguin, 1994), pp. 102–03.

A similar situation can arise with pictures by using clever cropping. In this case, a part of the picture is cut out which is indeed a picture itself, but none which could be discerned in the original picture with its original surroundings (and is therefore not a constituent). It is no more constitutive of the first picture than 'sex with Dick Cavett' is constitutive of the above sentence where 'sex' is the entire noun phrase and 'with Dick Cavett' a prepositional phrase (as opposed to the typographically identical one where both 'sex' and 'with Dick Cavett' are constituents of the noun phrase).

II. IMPLICATION RELATIONS BETWEEN PICTURES

There is a natural way of conceiving of an implication relation between pictures in terms of the relation of pictures and their subpictures. We might argue that in the case of two pictures, one of which shows a still life with fruits, and the other only a peach from this still life, the former implies the latter. More generally we could say that a picture implies all its subpictures.[16] Elliott Sober in his treatment of logical operations on picture agrees and claims that "the pictorial analogue of implications is containment" (*op. cit.*, p. 122). He also argues that containment is the *only* pictorial counterpart of implication. If this was indeed the case, there would not be much of interest in the study of implication relations between pictures. There would only ever appear one name of a picture on the left of any pictorial implication sign as only single pictures could imply anything individually, but never a group of them collectively. Moreover, implication would typically be unidirectional, as the item on the left of the implication-sign would contain more information than the one on the right.[17]

Neither of these two characteristics (which are independent of one another) is true of the familiar implication relation between propositions. Virtually all interesting implications have more than one premise, and while many are of the "information-losing" variety, in many other cases *implicans* and *implicatum* are equivalent.

[16] Note that this is an important respect in which pictures differ from sentences: 'The book is red or the book is heavy' implies neither of its two proper subsentences.

[17] Apart from the case of a picture being its own subpicture, which is always guaranteed by reflexivity. Note that there is also the case of a picture containing a near identical subpicture, like the label of a cheese showing a monk eating cheese on the label of which there is a monk eating cheese, and so on. Assuming finite complexity of pictures this regress has to stop somewhere (the label on the last cheese is just an array of pixels) and so this is *not* a case of a picture containing itself as a subpicture. If there are, say, five iterations then the largest picture will contain a part with only four iterations, which is obviously not identical with the largest picture.

Examples of each type can be conveniently summarized in the following table:

	ONE PREMISE	MULTIPLE PREMISES
UNIDIRECTIONAL	$A \vdash A \vee B$ [1]	$A \rightarrow B, A \vdash B$ [3]
BIDIRECTIONAL	$A \rightarrow B \vdash \neg B \rightarrow \neg A$ [4]	$A, B \vdash A \wedge B$ [2]

If the pictorial analogue of implication was indeed containment, all implications between pictures would be of the one-premise unidirectional variety (type [1]). This, however, is not the case. All four possibilities given in the above table have pictorial analogues.

Let us first of all look at pictorial implication with multiple premises. For an example of the bidirectional case (type [2]) consider the following. Assume there is a fresco at the end of a room which we are only allowed to view from a certain distance. Unfortunately from our point of view there are always two columns blocking our view of parts of the fresco. We can move around the room to see any part of the fresco, but we can never observe the whole fresco without the columns. Now it is clear that we can piece together the appearance of the complete fresco in our mind from the parts we were able to observe. We could do a similar thing with photos we have taken from different points of view: cut out the columns and then arrange the fragments in such a way that we get a continuous picture.

I want to argue that the parts of the fresco thus observed collectively imply it. Not only will a picture imply any of its subpictures, a collection of pictures will also imply one which is the result of putting all of them together in a certain way. Drawing implications is not just reducing the information present in the premises ('The book is red and square', therefore 'The book is red'), but equally combining it into a compound ('The book is red', 'The book is square', therefore 'The book is red and square').

Now take a case with multiple premises which is unidirectional (type [3]). In this case two pictures imply a third one which contains less information than the two of them together. Assume we have two pictures of the same statue taken from two different positions, *A* and *B*. In some cases it is possible to work out what a view of the statue from some position *C* between *A* and *B* would look like, solely on the basis of the two pictures from positions *A* and *B*. Then we would also want to say that the picture from *C* is implied by the pictures from *A* and *B*. It would then contain less informational content than both the pictures which imply it put together.

Considering this example shows that it is unhelpful to conceive of pictorial implication in terms of "cut and paste" operations. These

can account for unidirectional implications with one premise (where a subpicture is "cut out") and bidirectional implications with multiple premises (where the conclusion is "pasted together" from the premises). But "triangulating" a picture from two other ones in the way just sketched is not covered by such operations, nor are cases of bidirectional pictorial implications with one premise (type [4]). The most straightforward (if slightly boring) example is just the relation every picture bears to itself (the pictorial equivalent of $A \vdash A$). The fact that there are no more interesting examples of bidirectional pictorial implications with one premise (something like pictorial equivalents of $A \rightarrow B \vdash \neg B \rightarrow \neg A$) is due to the analogy between pictures and propositions described above. Pictures are collections of visual tokens which show the same, propositions are collections of linguistic tokens which say the same. Logical formulae "say the same" if they are logically equivalent, so $A \rightarrow B$ and $\neg B \rightarrow \neg A$ express the same proposition. Had we constructed the above table of different kinds of implication with propositions instead of logical formulae it would have been immediately obvious that the only example of a bidirectional implication relations with one premise would indeed have been of the form '*A* implies *A*'.

I have argued that each of the four kinds of implication given in the above table have a pictorial analogue. I also want to claim that four examples I have described (subpicture implication, the fresco case, the statue case, and the case of pictures implying themselves) all involve *a single pictorial implication relation.* What is my argument for this? The most elegant argument would be to reduce the four examples to one, by defining three in case of a fourth. Subpicture implication (type [1]) seems to be an attractive candidate for this, as it can be used to define type [4] (if everything is a subpicture of itself) as well as type [2] in the following way:

> $P_1,\ldots, P_n$ [2]-imply Q iff for every R, if P_1 [1]-implies R (that is, if R is a subpicture of P_1), and… P_n [1]-implies R, then Q [1]-implies R.

Unfortunately, it is not possible to define type [3] in terms of type [1] as well, nor is there any other of the four examples which could be used to define all the other ones. We therefore have to use another strategy to argue that the four examples are all special cases of a single pictorial implication relation. Consider the following definition of a pictorial implication relation $\rightharpoonup$:

> $P_1,\ldots, P_n \rightharpoonup Q$ iff the information contained in Q is properly or improperly included in the information in $P_1,\ldots, P_n$.[18]

[18] John Corcoran has developed a theory of implications for *propositions* based on the

First of all, note that there are two distinct senses of understanding the informational content of a picture. We might conceive of it as objective information, which is exclusively a feature of the picture, or as subjective information, which depends on the sensory and cognitive apparatus of the perceivers. Two different pictorial tokens might contain the same objective information but different subjective information. An example of this is the case of a photograph and its negative: we might be able to extract more information from one rather than the other, though the objective informational content of the two is exactly the same. For the purposes of this paper, I will restrict myself to objective informational content. The information a picture contains is therefore taken to be identical for all different possible perceivers considered.

Now the informational content of a subpicture thus perceived is obviously properly included in the bigger picture of which it is a part. All the parts of a fresco contain the same information as the fresco they jointly constitute.[19] If we use two pictures to generate an intermediate perspectival view, we lose some information in each of them, so the information present in the intermediate view is properly included in the information contained in the pictures which gave rise to it. Each picture contains the same information as itself. Thus it seems as if this definition in terms of information-content subsumes the four examples of pictorial implication given.

I am aware that my appeal to the information-content of pictures involves a considerable amount of hand-waving. There is at present no satisfactory worked-out theory of the information-content of visual representations (nor, one should hasten to add, is there workable a theory of semantic content on an information-theoretic basis). The

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very same idea. See his "Information-theoretic Logic," in Concha Martinez, ed., *Truth in Perspective* (Aldershot, UK: Ashgate, 1998), pp. 113–35.

[19] A possible worry one might have with this is the following. Assume two parts of the fresco, *A* and *B*, each show a part of a flower. The information about how many petals the flower has is neither present in *A* nor *B*. Indeed, looking at *A* and *B* we do not even know whether they are parts of the picture of the *same* flower. But this information is present in the entire fresco, consisting of *A* and *B* put togther. So the entire fresco, which is jointly implied by *A* and *B* contains more information than *A* and *B* separately, contrary to the definition, which claims that the information-content in the *implicatum* is always smaller than or equal to that of the *implicans*. The worry can be answered by referring to the distinction between conjunctions and concatenations introduced below. Only the concatenation of *A* and *B* contains the information about how many petals the flower has, but not the conjunction. As only the conjunction, not the concatenation is implied, the problem disappears.

present paper is certainly not the place for coming up with such a new theory. All I am doing here is noting the intuition that if we take a color picture and cut off a bit, or transform it into a black-and-white picture, the resulting picture contains less information than the original, while the results of, say, mirroring it or inversing the colors would not affect the amount of information contained. A theory of the information-content of pictures should be able to account for this intuition, and once such a theory has been developed we can give a clearer account of the background of the definition of pictorial implication in terms of information-content given above. The precise details of the theory do not matter much for our present purposes, as long as there is *any* reasonably systematic way of accounting for the intuitions just given (which seems to me beyond reasonable doubt).

The implication relation between pictures just presented is construed as a mono-categorial implication relation: the signs on either side of the implication sign denote items of a single type or category (namely pictures), in the same way as the objects denoted by the variables flanking $\vdash$ or $\Vdash$ are uniformly formulae or propositions, respectively. However, this is not the only and not even necessarily the most natural way of conceiving of implications between complexes such as pictures or states of affairs. It seems very straightforward to view the implication relation for complexes as poly-categorial. This is because a complex can imply something which is not a complex itself, or can in turn be implied by noncomplexes. A picture's constituents are not pictures in turn, but can become so by adequate supplementation; similarly the state of affairs that John is a bachelor might not just imply the state of affairs that he is male, but also its various constituents (the individual John, the monadic property of being male), which are no states of affairs. Conversely, two nonpictures, two constituents, can be put together to form a picture, thus implying it; two constituents of states of affairs (for example, an individual and a property) can imply the state of affairs resulting from putting the two together.[20]

Although I think that a satisfactory theory of implications dealing with complexes such as pictures or states of affairs should be poly-categorial in the sense just described, I will not pursue this idea further in the present paper. To keep matters simple, I will assume in the

[20] Of course parts of complexes can also imply other parts: constituents of pictures (for example, the complex of an outline together with a shading) can have constituents themselves (the outline, and the shading); the property 'loving Becca' (which is a constituent of a state of affairs) implies a further constituent, the individual Becca.

following that the symbols on either side of the pictorial implication-sign denote complete pictures, not their constituents.

It is important to note that the implication relation between pictures from a collection G just defined satisfies all of Koslow's six conditions for being an implication relation:

(1) REFLEXIVITY	for all A in G, $A \rightharpoonup A$
(2) PROJECTION	$A_1,\ldots,A_n \rightharpoonup A_k$, for any $k=1,\ldots,n$
(3) SIMPLIFICATION	for all A_i, B in G, if A_1, A_1, $A_2,\ldots,A_n \rightharpoonup B$, then A_1, $A_2,\ldots,A_n \rightharpoonup B$
(4) PERMUTATION	If A_1, $A_2,\ldots,A_n \rightharpoonup B$, then $A_{f(1)}$, $A_{f(2)},\ldots,A_{f(n)} \rightharpoonup B$ for any permutation f of 1, 2,..., n
(5) DILUTION	If $A_1,\ldots,A_n \rightharpoonup B$, then $A_1,\ldots,A_n$, $C \rightharpoonup B$ for all A, B, C, in G
(6) CUT	If $A_1,\ldots,A_n \rightharpoonup B$, and B, $B_1,\ldots,B_m \rightharpoonup C$, then $A_1,\ldots,A_n$, $B_1,\ldots,B_m \rightharpoonup C$ for all A_i, B_j, B, and C.

Every picture implies itself (this follows from the reflexivity of the subpicture relation), and the same holds if we consider any collection of pictures (thus satisfying projection). Repetition of pictures in a collection does not affect their implications, nor does their order. Pictorial implication is monotonic and sequences of implications can be simplified using cut.

At this point, it is instructive to consider another relation between pictures which we might intuitively consider an implication relation of sorts, but which fails to be one, as it only satisfies some of the above conditions.

The individual pictures making up a comic strip which are usually arranged in a narrative sequence might be taken to imply one another. If we consider a sequence of three pictures, the first showing a hammer striking a vase, the second the vase shattering, and the third the cat sleeping next to the vase waking up, it is not implausible to argue that in some way the first picture entails the second, and the second entails the third. The notion of implication in play here is, however, very different from the one studied in logic. While it definitively satisfies reflexivity and projection, and possibly also simplification,[21] permutation fails to be satisfied since the implication in this case also entails a temporal ordering: if we change the sequence of the pictures in the comic strip, the implications will not necessarily be

[21] This depends on whether we think that a series of repeated pictures in a comic strip can unproblematically be reduced to a single occurrence.

preserved. Dilution also fails: if one picture implies the following, it is not always the case that this implication is preserved when adding another one. The picture of the vase shattering implies that of the cat waking up, but if we interpose a picture between the two which shows that the shattering of the vase was only an image on a television screen in a different room from the cat then the final picture will no longer be implied. Finally, cut is not satisfied. If we "cut out" a sufficiently long sequence between pictures in a comic strip, it is not always the case that the last picture before the cut will imply its new successor, which is the first picture after the cut.

Unlike this "comic-strip implication," the implication relation between pictures based on informational content described above behaves structurally exactly like the implication relation familiar from logic. We will now consider how the different logical operators (conjunction, negation, disjunction, and the hypothetical) between pictures can be defined on the basis of this implication relation.

II.1. Conjunction.

> For any collection of pictures G we define the conjunction $Conj(A, B)$ of two pictures A and B from G to be the weakest picture in G such that $Conj(A, B) \rightharpoonup A$ and $Conj(A, B) \rightharpoonup B$. By saying that it is the weakest picture we mean that if for any other picture X from G, $X \rightharpoonup A$ and $X \rightharpoonup B$ then $X \rightharpoonup Conj(A, B)$.

It is instructive to consider the relation of the *logical* operation of pictorial conjunction with the *spatial* operation of concatenation. Sober regards concatenation as a conjunction operation (*op. cit.*, p. 122), at least when considering typical cases of concatenation.[22] Sober's notion of conjunction is, however, fundamentally different from the one developed here. He employs no framework for defining conjunction directly at the level of pictures, but only via their linguistic descriptions. Sober considers a representation function I such that for every picture p, $I(p)$ is a sentence specifying the information p provides (*op. cit.*, p. 112). It is then argued that an operation + on pictures is the equivalent to the conjunction operation on sentences in case $I(p+q) = I(p) \wedge I(q)$. Neglecting cases of clever blending the operation + can then be identified with concatenation.

[22] Concatenation "fails to exactly exemplify pictorial conjunction" (Sober, p. 121) because of the reverse of clever cropping (which we might want to call "clever blending"). If we concatenated two pictures and these would blend into a new picture distinct from the original ones the result would not be a conjunction, as the conjuncts are no constituents of it. See also Robert Howell, "Ordinary Pictures, Mental Representations, and Logical Forms," *Synthese*, XXXIII (1976): 149–74, on pp. 160–61.

Apart from the methodologically unattractive feature of having to switch systems of representations first in order to make sense of logical operations on pictures, Sober's account also faces internal difficulties, as noted by Robert Howell (*op. cit.*, p. 161). If we have two pictures each of which shows two apples next to one another then part of the information each picture provides is that there is exactly one apple to the right of the leftmost apple. Concatenating the pictures so that they show four apples in a row this is no longer the information given, for now there are three apples to the right of the leftmost one.

Of course, Sober could defend himself against this charge by modifying his claim and asserting that pictorial conjunction is not the equivalent of $\wedge$ but of a more complicated truth-functional operation called conjunction′ which only implies some, but not all of its conjuncts′.[23] Whether this defense is successful depends on the properties conjunction′ turns out to have in the end. More problematic seems to be that if we go down that route we are essentially answering a different question: instead of developing a theory of logical operations on pictures, we now inquire which of the claims of its subpictures a picture preserves. This is due to Sober's reluctance to deal with pictures directly and his concentrating instead on their linguistic equivalents.

The main reason, however, why we cannot identify conjunction with concatenation is that conjunction is unique, while concatenation is not. If we have two pictures there are various ways in which we can concatenate them in the plane: putting one above another or below it, one to the left of the other or the other way round, and so on. The difference is not that conjunction is a "purely mental" operation on pictures while concatenation would actually have to move physical pieces around. Both operations deal with pictures, not with paintings, and therefore do not deal with physical objects. To see that the same difference arises in the case of two purely mental operations compare the *mere combination* of some ideas (Paul, Peter, is taller than) and their *combination in a judgment* (Peter is taller than Paul, Paul is taller than Peter): the first operation just specifies that the items in question are put together, the second determines how exactly this is to be done.

Conjunction and concatenation are therefore two distinct cognitive operations on pictures. They can of course be applied in suc-

[23] A straightforward way of accounting for the phenomenon of clever blending would be to say that conjunction′ is nonmonotonic.

cession: we can form the conjunction of some concatenations, and we can also concatenate conjuncts. This latter is of particular interest when considering logically complex operations on pictures below. Concatenation on its own does not entail any minimality conditions (the sequence of words 'Peter plays well' qualifies as a concatenation of the words 'Peter' and 'plays'), but concatenation *of conjuncts* inherits the minimality condition from the definition of conjunction: the resulting object must be the weakest which can be concatenated from the elements of the conjunction.

While concatenations of pictures are obviously pictures, conjunctions are as well, although (unlike concatenations) their constituents do not stand in a determinate spatial relationship. It makes no sense to ask of the conjunction of the pictures of a cat and a mat whether the first is above the second or the other way round. But this does not keep it from being a picture (although a relatively abstract one) in the same way in which 'a picture of the Annunciation' is a picture, although there is not definite answer to the question regarding which side the angel is coming from.

Conjoining pictures is a cognitive operation which is particularly important when creating paintings. If we are commissioned to paint an Annunciation for a chapel or a cat-mat picture for a philosophy textbook the basis for the design is the weakest picture implying all the necessary subpictures (Mary, the angel, a lily; a cat and a mat), that is, the conjunction of these subpictures. While designing the picture, we then decide how to put these conjunct into a spatial relation with one another; that is, we form a concatenation. On the basis of this we can then proceed to execute the painting.

II.2. Disjunction.

> For any collection of pictures G the disjunction *Disj*(*A*, *B*) of two pictures *A* and *B* from G is the weakest picture in G such that for any *T* in G, if $A \rightharpoonup T$ and $B \rightharpoonup T$, then $Disj(A, B) \rightharpoonup T$.

The disjunction of two pictures is therefore the weakest picture which implies what each of the two disjuncts implies. While the logical operation of conjunction on pictures is central to the creation of paintings, disjunction is central to their comparison, for it gives rise to pictorial abstraction.

Assume we have two identical pictures of a peach, with the difference that the first shows the peach on a table, while the second shows it on a chair. The disjunction of the two is then just the subpicture of the two which shows the peach. We have therefore abstracted the "common element" of the two pictures. Although not every pair of pictures has a disjunction, it is still plausible to regard forming the

disjunction as a widespread and natural cognitive operation on pictures. Its precise form depends on the kind of identity conditions we assume for pictures. The strictest conditions would demand a pixel-by-pixel correspondence between pictures, while a more flexible approach might regard two pictures of the same thing as identical, even though they might not have a single pixel in common. On the latter understanding we can see how the notion of the disjunctions of pictures stands behind all attempts to give an account of a particular pictorial motive across a series of pictures. If we, for example, attempt a study of the depiction of windmills in the nineteenth-century English painting, the raw material to consider will be the disjunction of a particular set of paintings, namely those subpictures which are pictures of windmills and which all of a particular collection of paintings have in common.

II.3. Negation.

> For any collection of pictures G the negation *Neg*(*A*) of some picture *A* in G is the weakest picture in G such that for any picture *B* in G, *Neg*(*A*) together with *A* implies *B*.

This definition exploits the fact that something together with its negation implies anything whatsoever. The conjunction of a picture and its negation will be a contradictory picture; a picture of which everything is a subpicture. Whether there are contradictory pictures is a contentious issue,[24] but my account can remain neutral on this point. As collections of objects are not necessarily closed under implication relations there is no need to assume that any such "big picture" will indeed exist.

If our gallery G is rather boring and contains only three pictures of different pieces of fruit: *P*, the picture of a peach, *Q*, that of a quince, and *R*, that of a raspberry then *Neg*(*P*) will just be *Conj*(*Q*, *R*). Once a clear notion of implication between pictures is in place there is therefore nothing inherently mysterious about negative pictures.[25] We do not have to assume that negative pictures depict what is not the case, that they are all crossed by a red diagonal line, or that there is a more subtle hint of negativity present in them. Negative pictures are just pictures which are implicationally related to others in a particular way.

[24] See Roy Sorensen, "The Art of the Impossible," in Tamar Gendler and John Hawthorne, eds., *Conceivability and Possibility* (New York: Oxford, 2002), pp. 336–67, for an (indecisive) discussion.

[25] As there is nothing inherently mysterious about negative states of affairs once a mereology has been defined on them. See Meixner, pp. 44–45.

In fact we apply the operation of negation quite naturally in thinking about pictures whenever we consider a particular part in isolation and compare it to the rest of the picture presently at hand. If we discuss a painting which shows some figures in a landscape, and we want to direct somebody's attention to this very landscape we might say: 'Never mind about the men in the foreground—just concentrate on the rest'. What we are asking him to do is to consider the negation of the men in the foreground, that is, the largest subpicture of the painting of which the men in the foreground are no part.

The definition of negation also allows us to address a worry connected with the fact that implication relations are easy to come by: every nonempty set can be equipped with one. This profusion of implication relations is particularly evident when considering the dual of an implication relation. For any implication relation $\rightarrow$ its dual $\rightarrow^*$ is defined as follows: $A_1,\ldots, A_n \rightarrow^* B$ iff for every T, if $A_1 \rightarrow T,\ldots$ and $A_n \rightarrow T$, then $B \rightarrow T$. Now whenever $A \rightarrow B$, $B \rightarrow^* A$.[26] So whenever for two pictures S and T, $S \rightharpoonup T$, it is also the case that $T \rightharpoonup^* S$, where $\rightharpoonup^*$ is defined as

> $P_1,\ldots, P_n \rightharpoonup^* Q$ iff the information contained in Q properly or improperly includes the information in $P_1,\ldots, P_n$.

To make sense of this implication relation consider a particular case of $\rightharpoonup$, namely subpicture (type [1]) implication. This links a picture to all its subpictures. The dual of subpicture implication will do the reverse, and link it to all the pictures of which it is a subpicture. As this "superpicture implication" has the same structural properties as subpicture implications (as specified on page 615) we therefore see that there is some way in which a picture implies not just all the pictures which are parts of it, but also all those of which it is a part. There is no necessary connection between two objects standing in an implication relation and the *implicans* having a greater or equal informational content than the *implicatum*. Similar considerations apply to the other particular cases of $\rightharpoonup$.

Now we might rightly question why the present paper has chosen to study $\rightharpoonup$ rather than $\rightharpoonup^*$, given that the latter is also a perfectly good implication relation. The reason is that $\rightharpoonup$ has a much closer connection with the cognitive operations we employ in thinking about pictures than $\rightharpoonup^*$, and is therefore particularly interesting. This becomes evident in the treatment of negation. Had we chosen $\rightharpoonup^*$ as our pictorial implication relation the roles of conjunction and disjunc-

[26] See Koslow, *A Structuralist Theory of Logic*, p. 62, 9.1.

tion would have been reversed: disjunction would have formed the basis of concatenation, conjunction would have been connected with abstraction.[27] This, it seems, would have been little more than a change in terminology. Consider, however, what happens if we replace $\rightharpoonup$ by $\rightharpoonup^*$ in the above definition of negation. Let us once again think of $\rightharpoonup^*$ as superpicture implication. Now instead of the negation of a picture being something such that the conjunction of this negation and the picture together have any other picture as a subpicture, it is now the case that the conjunction of a picture and its negation are a subpicture of any picture whatsoever. It is not easy to make sense of this intuitively, but assume there was an ubiquitous picture *U* in a collection of pictures, something which was a subpicture of every picture in the collection. Then the negation of a picture *A* could be conceived of as some sort of thing which hooks onto *A* and at the same time transforms the compound into *U*.

The important point now is that there is no straightforward conceptual equivalent to negation defined in terms of $\rightharpoonup^*$ we use in thinking about pictures. There is one if we define pictorial negation in terms of $\rightharpoonup$: it is what allows us to isolate particular parts of pictures from others. For this reason $\rightharpoonup$ appears to be a more interesting pictorial implication relation than its dual.

II.4. Hypothetical.

> For any collection of pictures G containing *A* and *B*, the hypothetical *Hyp*(*A*, *B*) is the weakest picture in G such that *A*, *Hyp*(*A*, *B*) $\rightharpoonup$ *B*.

The hypothetical of two pictures is thus that picture which, together with the first one, implies the second. Again, it is easy to find a natural example of hypothetical pictures. Consider the case of reconstructing a picture (a fresco, for example) from an incomplete set of fragments. Let *A* be a fragment of a fresco and *B* a photographic reproduction of a detail from the fresco before its partial destruction. Let us also assume that the picture *B* shows partially overlaps the one *A* shows. Now if we added a reconstruction of the remaining part to *A* the resulting complete fresco would imply *B*. This remaining part therefore fulfils the condition of being the hypothetical of *A* and *B*: it is what we have to add to *A* in order to get *B* out.

To take another example, consider the picture *A* of a building from a certain perspective, say, from the north. Suppose we wanted to have a picture *B* of the same building from the north-west. Various pictures would imply *B* together with *A* (a picture of the building from the

[27] See Koslow, *A Structuralist Theory of Logic*, pp. 115–16.

west, from north-north-west, and so). The weakest of these (if there is one) will be the hypothetical *Hyp*(*A*, *B*).

II.5. Complex Operations. It is now apparent that the application of logical operations to pictures defined in structuralist terms yields natural and familiar cognitive operations we use when thinking about pictures. Conjunctions serves as a basis for concatenation (putting pictures together to form a bigger one), disjunction results in abstraction (extracting the common parts of distinct pictures), negation yields isolation (extracting a particular part of a single picture), and forming hypotheticals gives supplementation (adding the missing parts of a picture).

But these operations are not just employed on their own, they are frequently combined. Restoring a fresco, for example, entails first forming a series of hypotheticals *Hyp*(*A*, *B*), based on a particular extant fragment *A* and some conception of what the original *B* looked like. Subsequently, one concatenates the conjunction of the fragments with their hypotheticals to form the completed picture.

A more pedestrian but equally interesting case is constituted by "spot the difference" pictures frequently found in childrens' magazines. These consist of two nearly identical pictures which differ in a specified number of respects; the goal is to identify all of them. The logical operation required here is that of forming the negation of the disjunction of the two pictures. Taking first all the parts which the pictures have in common, and then identifying the strongest parts which do not imply anything the common parts imply will give us exactly all the subpictures in which the two pictures differ.

Similarly, situations can arise in more serious contexts. In a recent case, it was argued that a landscape painting by the nineteenth-century Russian realist Ivan Shishkin to be auctioned at Sotheby's for £700,000 was really a doctored version of a work by the relatively unknown Dutch Martinus Koekkoek, (valued at about £5000).[28]

The only difference between the two paintings is that the presumed Koekkoek shows some figures where the alleged Shishkin shows none; to compensate, the latter one shows a signature (that of Shishkin) which is lacking in the former. These differences are of course the negation of the disjunction of the two paintings. Different parts of this picture are hypotheticals which can be conjoined with the disjunction of the two paintings ("what they have in common") to turn it either into the Koekkoek or the Shishkin. If the signature was copied from another painting by Shishkin, it constitutes the negation

[28] As reported in the *Guardian* (July 10, 2004).

of all the other subpictures in this other painting which was then conjoined with the negation of a small part of the Koekkoek (namely the part where the signature was going to go). It is evident that the two paintings stand in a variety of logical relations which are, however, nothing but a precise articulation of familiar operations like concatenation, abstraction, isolation, and supplementation we use when thinking about pictures.

I hope this paper has shown that the notion of implication between pictures, as well as that of logical operations on pictures can be defined in a precise way. Moreover, these logical operations are not just interesting from a purely formal perspective but correspond to cognitive operations which we apply naturally when thinking about pictures.

I expect these observations to have implications for both the theory of representation and the philosophy of mind. Regarding the former a theory of logical relations between pictures will help to overcome the unnecessary fixation of the philosophical study of representation on linguistic representation by showing how logical relations hold between all kinds of representations, whether linguistic or not. Regarding the latter, much of the discussion in the current imagery debate is based on a more or less sharp division between syntactic and image-like forms of representation. Showing the extent to which logical relations hold for both could be the first step towards a unified theory of mental representation which incorporates both the descriptive and the depictive modes as special cases. Both of these topics will, unfortunately, have to be left as subjects of further investigation.

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AGAINST FICTIONAL REALISM

Fictional realists accept an ontology of fictional characters, creatures, places, and times. They are generally led to do so by a form of argument which is familiar from other areas of philosophy. For fictional realists note that there are apparently true sentences which appear to make reference to, or quantify over, fictional objects:

(1) (a) Raskolnikov is a fictional character.
(b) The character of Raskolnikov was created by Dostoyevsky.
(c) Raskolnikov is a more realistic character than Alyosha.
(d) There are fictional characters which could never have been depicted prior to the creation of Raskolnikov.
(e) There is a fictional character who, for every novel, either appears in that novel or is a model for a character who does.[1]

Now (1a)–(1e) appear to be literally and straightforwardly true. And it seems, *prime facie*, that we should take their syntax at face value. There simply is not an obvious systematic way of paraphrasing (1a)–(1e) that captures their original senses. But in this case, the fictional realist argues, we seem forced to accept that the occurrences of the name 'Raskolnikov' in (1a)–(1d) refer to a fictional object and that the quantifiers in (1d)–(1e) range over fictional objects. And this commits us to the existence of fictional objects.

The suggestion that the truth of (1d)–(1e) entails the existence of fictional objects is reinforced by two further observations. First,

[1] This sort of argument can be found in, for example, Charles Crittenden, *Unreality: The Metaphysics of Fictional Objects* (Ithaca, NY: Cornell, 1991), p. 95; Robert Howell, "Fiction Objects," *Poetics*, VIII (1979): 129–77, see p. 152; Peter Lamarque and Stein Haugom Olsen, *Truth, Fiction, and Literature* (New York: Oxford, 1994), pp. 96–99; Terence Parsons, *Nonexistent Objects* (New Haven: Yale, 1980), pp. 52–54; Amie Thomasson, *Fiction and Metaphysics* (New York: Cambridge, 1998), pp. 5–6; and Peter van Inwagen, "Quantification and Fictional Discourse," in Anthony Everett and Thomas Hofweber, eds., *Empty Names, Fiction, and the Puzzles of Non-Existence* (Stanford: CSLI, 2000), pp. 235–47, see pp. 243–44, as well as "Creatures of Fiction," in his *Ontology, Identity, and Modality* (New York: Cambridge, 2001), pp. 37–56, on p. 43, and "Existence and Ontological Commitment," in Michael Loux and Dean Zimmerman, eds., *Oxford Handbook of Metaphysics* (New York: Oxford, 2003), pp. 131–57, see pp. 136–38. Strict Quineans will insist that our ontological commitments are revealed, not by the natural language sentences we hold true, but rather by the way we choose to paraphrase these into First Order Logic but I will ignore this complication here.

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(1d)–(1e) can participate in certain apparently valid inferences, such as the inference from (1e) to the sentence:

(2) If no character appears in every novel then some character is modeled on another character.

The validity of this inference, it is suggested, requires us to understand the quantification involved as objectual quantification over fictional objects. Consequently, in so far as we take (1e) to be true, we seem committed to there being true sentences involving objectual quantification over fictional objects and hence to there being fictional objects.[2] Second, each of (1a)–(1e) appears to entail directly the sentence:

(3) There are fictional objects.[3]

In so far as we take (1a)–(1e) to be true we therefore seem committed to the truth of (3) and hence to the existence of fictional objects.

Let us call sentences such as (1a)–(1e) which appear to make reference to, or quantify over, fictional objects *Fictional Object Sentences* or *FOS* for short. Now fictional realists sometimes also offer analogous arguments for their position that invoke other sorts of linguistic data. Thus, for example, fictional realists sometimes argue that we are committed to fictional realism by the apparent truth of object-fictional sentences such as (4a) which appear to say what is true in the world of the relevant story, fictional intensional transitives such as (4b), and sentences comparing fictional and real objects such as (4c):

(4) (a) Raskolnikov is a student.
(b) Putin is searching for Raskolnikov.
(c) Putin is less neurotic than Raskolnikov.[4]

However, these cases are far more controversial. It is plausible that utterances of object-fictional sentences do not involve us actually asserting anything but rather involve our merely pretending to make assertions or at least our making assertions which describe the content of a pretense rather than the nature of the real world.[5] And if this is true it is not immediately clear how utterances of sentences

[2] See van Inwagen, "Quantification and Fictional Discourse," p. 244.

[3] See van Inwagen, "Existence and Ontological Commitment," p. 137.

[4] See, for example, Lamarque and Olsen, *Truth, Fiction, and Literature*, pp. 97–101; Karel Lambert, *Meinong and the Principle of Independence* (New York: Cambridge, 1983), p. 144; and Parsons, *Nonexistent Objects*, pp. 32–38.

[5] The classic statement of the view that utterances of object-fictional sentences should be understood as pretend assertions can be found in John Searle, "The Logical Status of Fictional Discourse," in his *Expression and Meaning* (New York: Cambridge, 1979), pp. 58–75; see Lamarque and Olsen, *Truth, Fiction, and Literature*, pp. 63–69, for a

such as (4a) *could* commit us to anything. Moreover, alternative treatments of the relevant comparatives and intensional transitives are available that do not seem to involve a commitment to fictional objects.[6] Of course, it might ultimately turn out that the only way to make sense of (4a)–(4c) requires our taking them to make reference to fictional objects. But this is not at all obvious and requires further argument. In what follows, then, I will confine my attention to the argument for fictional realism that is based upon the apparent truth of *FOS*.

Now there is some disagreement among fictional realists as to how we should understand the nature of fictional characters. Some, such as David Braun, Nathan Salmon, and Amie Thomasson, take fictional objects to be abstract human artifacts created by authors.[7] Nicholas Wolterstorff and Ed Zalta take fictional objects to be eternal abstract Platonic objects.[8] And Peter van Inwagen takes fictional characters to be abstract objects but does not commit himself as to whether they are created or eternal.[9] Moreover, there are those, such as Alexius Meinong, Terence Parsons, and Richard Routley, who take fictional objects to be nonexisting concrete objects.[10] We can ignore these differences for the moment, however, since the objections I will raise below apply equally to all of these approaches.

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discussion of Searle's position. See Stuart Brock, "Fictionalism about Fictional Characters," *Noûs*, xxxvi, 1 (2002): 1–21; van Inwagen, "Existence and Ontological Commitment," pp. 131–35; and Kendall Walton, *Mimesis as Make-Believe* (Cambridge: Harvard, 1990), pp. 396–405, for discussions of the ontological implications, or lack thereof, of object-fictional sentences.

[6] For examples of the former, see Mark Crimmins, "Hesperus and Phosphorus: Sense, Pretense, and Reference," *Philosophical Review*, cvii, 1 (1998): 2–48; and Walton, *Mimesis as Make-Believe*, p. 414. For examples of the latter, see Mark Richard, "Commitment," in James Tomberlin, ed., *Philosophical Perspectives 12* (Cambridge: Blackwell, 1998), pp. 255–81, and "Seeking a Centaur, Adoring Adonis: Intensional Transitives and Empty Terms," in Howard Wettstein and Peter French, eds., *Figurative Language: Midwest Studies in Philosophy, Volume XV* (Malden, MA: Blackwell, 2001), pp. 103–27.

[7] See Braun, "Empty Names, Fictional Names, Mythical Names," *Noûs*, xxxix, 4 (2005): 596–631; Salmon, "Nonexistence," *Noûs*, xxxii, 3 (1998): 277–319; and Thomasson, *Fiction and Metaphysics*, "Fictional Characters and Literary Practices," *British Journal of Aesthetics*, xliii, 2 (2003): 138–57, and "Speaking of Fictional Characters," *Dialectica*, lvii, 2 (2003): 205–23.

[8] See Wolterstorff, *Works and Worlds of Art* (New York: Oxford, 1980); and Zalta, *Abstract Objects* (Boston: Reidel, 1983), and *Intensional Logic and the Metaphysics of Intensionality* (Cambridge: MIT, 1988).

[9] See van Inwagen, "Quantification and Fictional Discourse," "Creatures of Fiction," and "Existence and Ontological Commitment."

[10] See Meinong, "Über Gegenstandstheorie," in his *Untersuchungen zur Gegenstandstheorie und Psychologie* (Leipzig: Barth, 1904), and *Über die Stellung der Gegenstandstheorie im System der Wissenschaften* (Leipzig: Voigtlander, 1907); Parsons, "A

Of course, if we accept fictional characters into our ontology then we face the task of determining precisely which fictional characters there are. Now it seems obvious that which fictional characters we take to occur in a story will depend upon what the world of that story is like. And, in fact, I suggest that the following principles have a near platitudinous status:

(P1) If the world of a story concerns a creature *a*, and if *a* is not a real thing, then *a* is a fictional character.

(P2) If a story concerns *a* and *b*, and if *a* and *b* are not real things, then *a* and *b* are identical in the world of the story iff the fictional character of *a* is identical to the fictional character of *b*.

Some of our intuitions about fictional characters may, arguably, be potentially revisable. But (P1) and (P2) seem so fundamental to our conception of a fictional character I doubt very much that any account which rejected (P1) or (P2) would deserve to be counted as an account of fictional characters but should rather be regarded as an account of some other sort of entity. Note in any case that our intuitions that (P1) and (P2) are true seem at least as strong as our intuitions that (1a)–(1e) are true. Moreover, our acceptance of many *FOS* appears to result from our applying (P1) and/or (P2). Thus, for example, I suspect that our intuitions that (P1) is true are at least as strong as our intuitions that (1a) is true and that we only judge (1a) to be true because we accept (P1) and take the world of *Crime and Punishment* to contain Raskolnikov. I would argue, then, that the fictional realist cannot reject (P1) or (P2) without thereby undermining our motivation for accepting fictional realism in the first place. In what follows I shall therefore assume that the fictional realist is committed to (P1) and (P2).

Of course, as they stand, these principles are not terribly helpful since they presuppose an account of what it is for something to be the case in the world of a story. And this is a complex matter depending not merely upon what the relevant text says but upon the interpretation we bring to bear upon that text. Still, let us put these difficulties aside for the moment. In what follows, I shall argue that a commitment to (P1) and (P2) is enough to get the fictional realist into difficulties. In particular, I shall argue, authors may leave certain

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Prolegomenon to a Meinongian Semantics," this JOURNAL, LXXI, 16 (September 19, 1974): 561–80, *Nonexistent Objects*, and "Are There Nonexistent Objects?" *American Catholic Philosophical Quarterly*, XIX (1982): 365–71; and Routley, *Exploring Meinong's Jungle and Beyond: Department Monograph 3, Philosophy Department* (Canberra: Australian National University, 1980).

things unspecified about the world of their story including whether certain creatures count as identical or distinct in that world and which creatures exist in that world. Given (P1) and (P2), this sort of underspecification within a story gives rise to ontic indeterminacy concerning which fictional characters occur within that story. Moreover, I shall argue, if the laws of logic and identity fail in the world of a story, these failures may infect the fictional characters occurring in that story. In short, given (P1) and (P2), the fictional realist seems committed to certain pernicious forms of indeterminacy and to objects that flout the laws of logic and identity. These are obviously undesirable commitments. And, since these consequences do not arise for a pretense-theoretic account of fictional objects, I shall argue that we should favor a pretense-theoretic account over fictional realism. I conclude by briefly comparing the objections I raise in this paper to those raised by Bertrand Russell to Meinong.

I. OBJECTION 1: ONTIC INDETERMINACY

Let us turn to our first objection to the fictional realist. Now it is widely recognized that if there are fictional objects then it will at least sometimes be a vague or indeterminate matter as to whether two fictional objects are identical.[11] This is particularly clear when we consider questions of intertextual identity. Consider, for example, the question of whether Marlowe's Faust is the same character as Goethe's Faust. Now I suspect our concept of fictional characters is insufficiently precise to provide an answer to this question and we have no principled pre-theoretic way of deciding it one way or the other. It seems plausible, then, to regard it as *indeterminate* whether these Faust characters are identical or distinct.

Many fictional realists seem willing to accept such cases of intertextual indeterminacy and, as they stand, I doubt these cases pose much of a problem to the fictional realist. For it is common to distinguish between benign cases of indeterminacy which arise as the result of imprecision in our concepts and language and pernicious cases of ontic indeterminacy where the nature of the world is itself indeterminate. And I think the fictional realist can plausibly argue that the cases of indeterminacy noted above result because of the imprecision in our concept of a fictional character. Our concept of a fictional character is simply not sufficiently precise to settle whether

[11] See, for example, Lamarque, "Objects of Interpretation," *Metaphilosophy*, XXXI, 1/2 (2000): 96–124 (see in particular p. 120); and Thomasson, "Fictional Characters and Literary Practices," p. 155.

we have two Faust characters or one but, were we so inclined, we could precisify it so as to settle this question.

Nevertheless, a little reflection suggests that the fictional realist is also committed to cases of genuine ontic indeterminacy. For a story might describe two characters in such a way that it is left indeterminate whether or not they are identical:

> *Frackworld*: No one was absolutely sure whether Frick and Frack were really the same person or not. Some said that they were definitely two different people. True, they looked very much alike, but they had been seen in different places at the same time. Others claimed that such cases were merely an elaborate hoax and that Frick had been seen changing his clothes and wig to, as it were, become Frack. All that I can say for certain is that there were some very odd similarities between Frick and Frack but also some striking differences.

I think it is pretty clear that in this story it is left indeterminate as to whether Frick is Frack. But in this case (P2) entails that it is indeterminate whether the Frick-character is identical to the Frack-character.[12] Note that this indeterminacy does not arise because our concept of a fictional character is vague and imprecise. No attempt to refine or precisify our concept of a fictional character can remove the indeterminacy in Frackworld and, granted (P2), this indeterminacy in Frackworld will carry over into an indeterminacy concerning whether or not the Frick-character is the same as the Frack-character.

This ontic indeterminacy is potentially problematic for the fictional realist for there is a well-known argument from Gareth Evans which appears to show that it cannot be an indeterminate matter as to whether a is b.[13] The argument runs as follows. Suppose that it was indeterminate as to whether a was b. Then b would have the property of being indeterminately identical to a. But, since a is determinately identical to a, a does not have the property of being indeterminately identical to a. So there is a property which b has but a lacks. So by Leibniz's Law $a \neq b$. Now, as it stands, this is not a strict *reductio* of our assumption. But it is surely an undesirable consequence for those who wish to maintain that it is indeterminate as to whether a is b. Moreover, we may transform Evans's argument into a *reductio* of the

[12] This is granted, of course, the plausible assumption that the biconditional in (P2) preserves indeterminacy.

[13] Evans's original argument is in his "Can There Be Vague Objects?" *Analysis*, XXXVIII (1978): 208. There is an enormous body of literature on Evans's argument to which I cannot hope to do justice here, but see Timothy Williamson, "Vagueness in Reality," in Loux and Zimmerman, eds., for an excellent discussion of the relevant issues and references to the relevant literature.

assumption that it is definitely the case that it is indeterminate whether *a* is *b* as follows. Granted that Evans's original argument preserves definiteness, it follows from the assumption that it is definitely the case that it is indeterminate whether *a* is *b* that *a* is definitely distinct from *b*. But our assumption also entails that it is indeterminate whether *a* is *b* which, plausibly, entails that *a* is *not* definitely distinct from *b*.

Of course, it might turn out in the end that there is something wrong with Evans's argument. But it is worth heading off at least one potential response on the part of the fictional realist here. Some have thought that Evans's argument may be blocked by a so-called fuzzy logic invoking degrees of truth and the fictional realist might hope to avail herself of this response.[14] The problem here is that it is completely unclear how we could assign any degree of truth at all to the claim that Frick is Frack in our story. We cannot say whether that claim is very true, or quite true, or quite false, or very false, or somewhere in between. We cannot even say if any of these options are truer than any of the others. Fuzzy logic may work well for cases of vagueness where we have a series of borderline cases possessing a property to a greater or lesser degree. It does not work terribly well with the sort of penumbra-free indeterminacy generated by *Frack-world*. Anyway, I think it is clear that those who wish to reject Evans's argument must argue their point. And until the fictional realist discharges this burden so much the worse for her position.

Fictional realists also seem to be committed to a rather different form of ontic indeterminacy. For they appear committed, not merely to cases of vague identity, but also to cases of vague existence or indeterminate being. Consider Tatyana Tolstaya's recent novel *The Slynx*. Now in the end, I think, it is pretty much left open whether or not there really is a Slynx in Tolstaya's novel. It seems to be an indeterminate matter as to whether the world of that novel contains a Slynx. But then, given (P1), it follows that it is an indeterminate matter as to whether there is such a fictional creature as the Slynx.[15]

The problem here is that it is not clear how the being of the Slynx-creature could be an indeterminate matter. Three possibilities sug-

[14] For an application of fuzzy logic to Evans's argument, see B. Jack Copeland's excellent "Fuzzy Logic and Vague Identity," this JOURNAL, XCIV, 10 (October 1997): 514–34. For classic expositions of fuzzy logic, see Joseph Goguen, "The Logic of Inexact Concepts," *Synthese*, XIX (1969): 325–73; Kenton Machina, "Vague Predicates," *American Philosophical Quarterly*, IX (1972): 225–33, and "Truth, Belief, and Vagueness," *Journal of Philosophical Logic*, V (1976): 47–78; and Lofti Zadeh, "Fuzzy Sets," *Information and Control*, VIII (1965): 338–53.

[15] I assume, of course, that the biconditional in (P1) preserves indeterminacy.

gest themselves. The fictional character of the Slynx might be a special sort of object with an indeterminate ontological status so it does not definitely have being but does not definitely lack being either. It might be indeterminate as to whether the property of being the Slynx-character is instantiated. Or perhaps it is indeterminate as to whether the state of affairs of there being a Slynx-character obtains. I do not see what else it could be for it to be indeterminate as to whether there is a Slynx-character. But in the present case none of these will do.

The first option fails because it is not clear that those who postulate objects of indeterminate ontological status can even coherently formulate their position. In order to do this they must, presumably, maintain that there are objects which do not determinately have being but which do not determinately lack being either. But, of course, in so far as they commit themselves to *there being* such objects, they appear to commit themselves to those objects having a determinate ontological status after all.[16]

It might be replied, against this objection, that those who postulate objects of indeterminate ontological status should not maintain that there *are* such objects but rather merely that it is indeterminate as to whether there are any such objects. This might be so. But in the present context this reply simply pushes our problem one stage back. We wanted an account of what it could be for it to be indeterminate as to whether there is a Slynx-character. The suggestion we were considering was that the Slynx-character might be an object with an indeterminate ontological status. In other words we invoked the idea that the Slynx-character might be an object with an indeterminate ontological status in order to make sense of the claim that it is indeterminate whether the Slynx-character exists.

I argued, however, that we cannot make sense of there *being* a Slynx-character of indeterminate ontological status. Rather we must hold that it is indeterminate whether there is a Slynx-character of indeterminate ontological status. But this means that we still need an account of what it is for it to be indeterminate as to whether there is a Slynx-character. And this is the very phenomenon that the postulation of ontologically indeterminate objects was supposed to explain. We have gone around in a circle and the postulation of ontologically indeterminate objects does no explanatory work here. I conclude that the fictional realist cannot provide an account of what

[16] Van Inwagen makes a similar point in his *Material Beings* (Ithaca, NY: Cornell, 1990), p. 240.

it is for it to be indeterminate whether there is a Slynx-character by maintaining that the Slynx-character is an object of indeterminate ontological status.

The second option fails because, in order for it to be indeterminate as to whether a property is instantiated, there must surely be an object or set of objects such that it is indeterminate as to whether they instantiate that property. At any rate, if every object determinately fails to instantiate a given property it is not clear how it could be indeterminate whether that property is instantiated. Now if the property of being the Slynx-character is indeterminately instantiated then it must be indeterminately instantiated by a fictional character in Tolstaya's novel. But every fictional character occurring in Tolstaya's novel which has a determinate ontological status determinately does not instantiate the property of being the Slynx-character. So the property of being the Slynx-character is not indeterminately instantiated by any objects that have a determinate ontological status. If it is indeterminately instantiated at all, then, it must be indeterminately instantiated by an object which does not have a determinate ontological status. So, if the suggestion we are considering is to work, we must accept that there are objects which lack a determinate ontological status. But, of course, we have just rehearsed the problems facing the view that there are such things.

The third option fails because, if it is indeterminate as to whether the state of affairs of there being a Slynx-character obtains, it must surely be indeterminate as to whether the property of being the Slynx-character is instantiated. After all, if that property was determinately instantiated or determinately failed to be instantiated then it is hard to see how it could be an indeterminate matter as to whether the state of affairs of there being a Slynx-character obtained. But we have already seen that, in the present instance, we cannot make sense of it being indeterminate as to whether the property of being the Slynx-character is instantiated.

Of course, there might be some other way of understanding how it could be indeterminate as to whether there is a Slynx-character that we have not considered. But, if so, I do not see what it is. And the fictional realist is clearly faced with the task of explaining it. Until the fictional realist discharges this burden, so much the worse for her position.

The two arguments just given assume (P2) and (P1) respectively and, although I argued earlier that the fictional realist must accept these principles, a fictional realist might nevertheless hope to block my arguments by rejecting them. However, it is worth pointing out that this strategy faces a problem. For, even if we block my arguments by rejecting (P1) and (P2), we still face the problem of deciding

whether the Frick-character is the same as the Frack-character and whether there is a Slynx-character. And there seems no principled way in which we might decide these questions. In each case we have no more reason to choose one of the options than the other and whatever choice we make will be unacceptably *ad hoc*. Hence, I would argue, simply rejecting (P1) and (P2) will not save the fictional realist.

Before concluding our discussion of indeterminacy, it is worth emphasizing that the cases we have been discussing really generate two problems for the fictional realist. First, of course, the fictional realist seems committed to two problematic varieties of ontic indeterminacy. But even those who are willing to embrace ontic indeterminacy face a second and perhaps deeper problem here. For, if fictional realism were true, ontic indeterminacy would be uncomfortably easy to come by. To bring this point out imagine, for a moment, that God created the world so that it was completely precise and determinate, so that there was no ontic indeterminacy of any form. If fictional realism was true then human beings could still generate cases of ontic indeterminacy simply by writing fiction. This seems disquieting. Surely we do not have this degree of control over the metaphysical nature of the world. And we should surely be wary of any view which entails that we do.

II. OBJECTION 2: LOGICAL INCOHERENCE

Let us turn to our second objection to the fictional realist. The difficulty here is that a story might describe an impossible world in which the laws of logic or identity fail. But since, by (P1) and (P2), what exists in the world of a story determines which fictional characters occur in that story, various impossibilities within the world of a story may infect the fictional characters that occur in that story. Here are two examples.[17] In the first story the law of noncontradiction fails. In the second, the symmetry of identity fails:

> *Dialethialand*: When she arrived in Dialethialand, Jane met Jules and Jim. This confused Jane since Jules and Jim both were, and were not, distinct people. And this made it hard to know how to interact with them. For example, since Jules both was and was not Jim, if Jim came to tea Jules

[17] These examples might be multiplied. With sufficient ingenuity we might construct stories where, for example, the law of excluded middle, the reflexivity of identity, the transitivity of identity, and the laws of arithmetic, fail to apply to identity statements involving the denizens of the stories and hence fail to apply to the fictional characters occurring in those stories. Indeed, Tamar Szabo Gendler's *The Tower of Goldbach* (see her "The Puzzle of Imaginative Resistance," this JOURNAL, XCVII, 2 (February 2000): 55–81) provides a case where, arguably, 7 fictional characters plus 5 fictional characters both does and does not equal 12 fictional characters.

both would and wouldn't come too. This made it hard for Jane to determine how many biscuits to serve. Then Jane realized what to do. She needed both to buy and not to buy extra biscuits whenever Jim came. After that everything was better.

Asymmetryville: As soon as he got up in the morning Cicero knew that something was wrong. It was not that he was distinct from Tully. On the contrary, just as always he was identical to Tully. It was rather that while he was identical to Tully, Tully was distinct from him. In other words, some time during the night (he could not tell exactly when) the symmetry of identity failed. This had some rather annoying consequences. When Cicero got paid Tully could spend the money but not vice versa. Tully got fat off the food Cicero ate and gave up dining himself. And Tully was praised for Cicero's denunciation of Catiline although he himself had slept through the whole affair. It was enough to test Cicero's Stoicism to the limits. Then something happened that changed everything. Cicero's political enemies who knew that Cicero was Tully mistook Tully for Cicero and murdered him. At first it seemed as if Tully had died. But then Cicero realized that since he was alive and he was Tully, Tully was alive too. Tully was understandably grateful and reformed his ways. After that Cicero and Tully lived together happily.

These magical realist stories describe worlds that are supposed to flout the laws of logic. In the world of *Dialethialand*, Jules both is and is not Jim and in the world of *Asymmetryville*, Cicero is Tully though Tully is not Cicero. The question arises, then, as to which fictional characters occur in these stories.

If, as I suggested, the fictional realist is committed to (P1) and (P2) then there seem only two responses open to her if she wants to avoid a commitment to objects that flout the laws of logic and identity. She could maintain that my stories do not contain any fictional characters at all. Or she could allow that they contain fictional characters but maintain that these characters do not after all flout the laws of logic and identity. Let us call the first response the *No Character* response and the second response the *Coherent Character* response. I will consider and reject each response in turn.

Given (P1) and (P2), the No Character response requires the fictional realist to deny that *Dialethialand* and *Asymmetryville* describe fictional worlds that contain people. Now in so far as *Dialethialand* and *Asymmetryville* describe fictional worlds those worlds certainly appear to contain people. So I think that if the fictional realist is to maintain the No Character response she had better argue that, despite appearances to the contrary, *Dialethialand* and *Asymmetryville* do not succeed in describing fictional worlds in the first place.

Unfortunately, this claim seems highly implausible and it is not clear how it might be defended. Of course, the fictional realist could simply insist that fictional worlds must obey the laws of logic and identity. But without some independent motivation this seems a terribly *ad hoc* maneuver and I doubt it could be maintained. After all, many stories contain lurking or explicit contradictions but we nevertheless take them to provide perfectly good descriptions of fictional worlds.

A more interesting variant of this response on the part of the fictional realist would hold that we cannot really imagine the worlds which *Dialethialand* and *Asymmetryville* attempt to describe because this would require us to imagine something logically incoherent and then argue that a story counts as successfully describing a fictional world only in so far as we can imagine that world.[18] But this response also faces its problems. While *Dialethialand* and *Asymmetryville* are no doubt strange stories, I think many readers are able to engage imaginatively with them. After all, I suspect that many readers will find Jane's response to the biscuit problem very appropriate, given that she is in Dialethialand. And I suspect that many will also find the way Cicero and Tully resolve their conflict appropriate. But the very fact that we find such things appropriate is surely a sign that we are able to engage with my stories and have succeeded, at least to some extent, in imagining the worlds they portray.

Of course, it might be objected, we cannot really imagine the worlds of my stories because we cannot really imagine in detail what the world would have to be like in order for my stories to be true. Rather, it seems, when we try to imagine the worlds described by *Dialethialand* and *Asymmetryville*, we will only focus upon certain aspects of those worlds at any one time. At different times we may

[18] We might, for example, take my stories to be describing conceptual impossibilities and agree with Kathleen Stock that we cannot imagine conceptual impossibilities; see her "The Tower of Goldbach and Other Impossible Tales," in Matthew Kieran and Dominic Lopes, eds., *Imagination, Philosophy, and the Arts* (New York: Routledge, 2003), pp. 107–24. Of course, Stock's arguments raise the question of what counts as a conceptual impossibility. But, putting this issue to one side, I think there are serious reasons to doubt their cogency. Brian Weatherson, "Morality, Fiction, and Possibility," *The Philosopher's Imprint*, IV (2004): 1–27 (see especially pp. 10–11) raises some well-taken worries about some of Stock's arguments and I give some further reasons to suppose can imagine the logically incoherent below. See Szabo Gendler's "The Puzzle of Imaginative Resistance," and "On the Relationship between Pretense and Belief," in Kieran and Lopes, pp. 139–40, for a defense of our ability to imagine conceptual impossibilities. Weatherson, "Morality, Fiction, and Possibility," argues that we are able to imagine certain impossibilities although he is more cautious than Gendler about our ability to imagine *conceptual* impossibilities.

focus upon aspects of these worlds that are not logically compatible with each other. But, at any one time, what we imagine is logically coherent. And we are unable to bring these different islands of coherence together and imagine what Dialethialand and Asymmetryville are really like in any detail or completeness.

I grant that we cannot imagine in any detail or completeness what Dialethialand or Asymmetryville would be like. But this seems equally true of many other stories and does not appear to prevent our imagining the worlds of those stories. When we watch Aristophanes we have no difficulty imagining that the birds build a Cloud-Cuckoo-Land between heaven and earth. Generations of readers and viewers have had no difficulty imagining that Dr. Who's Tardis is a small police phone box on the outside but contains a vast space within. And generations of children have had no difficulty imagining that Winnie the Pooh and Piglet are talking animals. But when we stop and try to imagine in detail how the world would have to be if any of these things were the case then our imaginations are likely to balk. A great deal of the world's fiction will generate imaginative resistance if we try to delve too closely into what the world would have to be like in order for the relevant stories to be true but this does not prevent us from imaginatively engaging with that fiction and imagining the word it describes. So I grant that we cannot imagine in detail what the worlds portrayed in *Dialethialand* and *Asymmetryville* would be like but I do not think this precludes our imaginatively engaging with those stories or our imagining those worlds to be real.[19]

There is obviously a great deal more to say here but for the moment I want to point out two reasons to suppose that we are, in general, able to imagine logically incoherent or inconsistent states of affairs. First, observe that we do seem able to pretend or imagine that some logically impossible state of affairs holds in order to see what follows from them or in the course of a *reductio* proof that no such state of affairs can obtain. I might, for example, imagine that Cicero is Tully but Tully is distinct from Cicero in the course of a *reductio* proof aimed at establishing the impossibility of this. But if I can imagine this when constructing a *reductio* then surely I can also imagine it when reading fiction. Second, observe that some humans do genuinely seem able to *believe* things that are logically incoherent or inconsistent. Dialetheists believe that certain contradictions are both true and false. Meinongians believe in nonexistent objects. And some of us believe that The

[19] Szabo Gendler makes a closely related point in her "The Puzzle of Imaginative Resistance," pp. 69–70.

Trinity is simultaneously both one and three. But if humans can *believe* logically incoherent or inconsistent things then surely we can imagine or pretend those things. If we can believe that The Trinity is both one and three then we can surely pretend that Jules both is and is not Jim.

So much the worse, then, for the No Character response. But what about the Coherent Character response? As I see it there are two problems with this response. We can bring these out by considering how the response applies to *Dialethialand* but analogous points may be made with respect to *Asymmetryville*. The first problem is we have to decide whether we are going to take Jules to be identical to Jim or whether we are going to take Jules to be distinct from Jim. And there seems no possible reason to favor one of these options over the other. It seems *ad hoc* and unmotivated to maintain that Jules and Jim are identical and reject the claim that Jules and Jim are distinct. But it seems equally *ad hoc* and unmotivated to maintain that Jules and Jim are distinct and reject the claim that Jules and Jim are identical. The second problem here is that neither of these options really does justice to my story. In so far as we deny that Jules and Jim are distinct or deny that they are identical we seem to get something badly wrong about the world of my story. Neither of these options, for example, allows us to make good sense of Jane's Dialetheist solution to the biscuit problem. In so far as we find Jane's solution very appropriate in the context of my story, I think we must imagine that Jules both is and is not Jim. The only way to do justice to my story then, I would suggest, is to accept that in the world of *Dialethialand*, Jules both is and is not Jim.

I conclude that neither the No Character response nor the Coherent Character response work. We must accept that, in the world of *Dialethialand*, Jules both is, and is not, identical to Jim. This, together with (P1) and (P2), entails that the fictional object corresponding to Jules both is and is not identical to that corresponding to Jim. Moreover we must accept that, in the world of *Asymmetryville*, Cicero is Tully but Tully is distinct from Cicero. This, together with (P1) and (P2), entails that the fictional object corresponding to Cicero is identical to the fictional object corresponding to Tully but that the latter object is distinct from the former. The fictional realist, then, appears to be committed to the existence of logically incoherent objects.

Once again there are two reasons to be unhappy about this outcome. A commitment to logically incoherent objects is in itself obviously extremely problematic. But there is a second problem facing the fictional realist here. For if fictional realism were true then true inconsistencies and violations of the laws of identity would be

uncomfortably easy to come by. If God created a world in which the law of noncontradiction and the laws of identity otherwise held, we would nevertheless be able to violate these laws simply by making up stories like *Dialethialand* and *Asymmetryville*. Surely we do not have this degree of control over the laws of logic and identity. And surely we should be wary of any view which allows that we do.

III. PRETENSE THEORY

In the light of these problems I think that we would be well advised to abandon fictional realism and exclude fictional objects from our ontology. But in this case we need an alternative account of how we should understand (1a)–(1e) and our talk and thought about fictional objects in general. Moreover, of course, our account should allow us to avoid the problems facing fictional realism. In what follows I will sketch a view that I find plausible and that meets these desiderata.

I am going to argue that we should, in a certain sense, take a fictionalist view of fictional characters so I want to begin by briefly considering how we should understand the nature of fiction. I am going to assume that our engagement with fiction should be understood in terms of our engaging in some sort of imaginative act, pretense, or game of make-believe.[20] More precisely, I will assume that our engagement with a fictional text involves our pretending that the world is as that fictional text portrays it. But I do not want to commit myself to the details of any more specific view beyond this for the moment nor do I want to commit myself to any particular account of the imagination, pretense, or make-believe.[21] The reader should feel free to substitute whatever variant of my account she prefers and to adopt her favored account of imagination, pretense, and make-believe. Anyway, the basic idea here is that just as little Johnny might pretend that his bicycle is a horse, and just as little Sally might pretend

[20] This sort of view is defended by, amongst others, Greg Currie in his *The Nature of Fiction* (New York: Cambridge, 1990), and Walton in *Mimesis as Make-Believe*.

[21] No doubt there is a lot of work still to be done in unpacking these concepts but I think that we have a solid pre-theoretic grasp upon these notions and there is an increasing body of interesting work in philosophy and psychology on pretense and the imagination. See, for example, Currie, "Imagination and Simulation," in Martin Davies and Tony Stone, eds., *Mental Simulation* (Cambridge: Blackwell, 1995), pp. 151–69, "The Paradox of Caring," in Mette Hjort and Sue Laver, eds., *Emotion and the Arts* (New York: Oxford, 1997), pp. 63–77, and "Pretense, Pretending, and Metarepresenting," *Mind and Language*, XIII, 1 (1998): 35–55; Currie and Ian Ravenscroft, *Recreative Minds: Imagination in Philosophy and Psychology* (New York: Oxford, 2003); Szabo Gendler, "On the Relationship Between Pretense and Belief"; Paul Harris, "Imagining and Pretending," in Davies and Stone, eds., and *The Work of the Imagination* (Malden, MA: Blackwell, 2000); Alan Leslie, "Pretense and Representation," *Psychological Review*, XCIV

that she is a Native American telling the story of her tribe, so, when we read *Emma*, at least in the simplest case, we pretend that we are reading a factual narrative and we imagine that what we read really took place.[22] Utterances of object-fictional sentences such as (4a) are to be understood as being made within the scope of these sorts of pretense. So in uttering (4a) we are not making an assertion about the real world. Rather we are pretending that the world is as it is portrayed in *Crime and Punishment* and we utter (4a) in order to describe it.

Next I want to note a phenomenon which suggests that our talk and thought about fictional characters, the sort of talk and thought that fictional realists take to be about real fictional objects, is a natural extension of this sort of imaginative engagement with fiction. For observe that critics are given to saying such things as:

(5) The most famous of Conan Doyle's creations is the great detective Sherlock Holmes who lives in Baker Street.

Now (5) simultaneously talks about Holmes both as if he were a human detective living in Baker Street and as if he were a fictional object created by Conan Doyle. In other words, (5) simultaneously talks about Holmes from the perspective of the reader who is caught up in the world of the Holmes stories and from the perspective of the critic who is engaged in literary criticism. In fact, a little reflection

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(1987): 412–26; Angeline Lillard, "Making Sense of Pretence," in Charlie Lewis and Peter Mitchell, eds., *Children's Early Understanding of Mind: Origins and Development* (Hillside, NJ: Lawrence Erlbaum, 1994), pp. 211–34, "Pretending, Understanding Pretense, and Understanding Minds," in Stuart Reifel, ed., *Theory in Context and Out* (Westport, CT: Ablex, 2001), pp. 233–54, and "Just Through the Looking Glass: Children's Understanding of Pretense," in Robert Mitchell, ed., *Pretending and Imagination in Animals and Children* (New York: Cambridge, 2002), pp. 102–14; Aaron Meskin and Jonathan Weinberg, "Imagine That!" in Kieran, ed., *Contemporary Debates in Aesthetics and the Philosophy of Art* (Malden, MA: Blackwell, 2006), pp. 222–35; Shaun Nichols, "Imagination and the Puzzles of Iteration," *Analysis*, LXIII (2003): 182–87, "Imagining and Believing: The Promise of a Single Code," *Journal of Aesthetics and Art Criticism*, LXII (2004): 129–39, "Just the Imagination: Why Imagining Doesn't Behave Like Believing," forthcoming in *Mind and Language*; Josef Perner, *Understanding the Representational Mind* (Cambridge: MIT, 1993); Shaun Nichols and Stephen Stitch, *Mindreading* (New York: Oxford, 2003); and Walton, *Mimesis as Make-Believe*, "Metaphor and Prop Oriented Make-Believe," *The European Journal of Philosophy*, I, 1 (1993): 39–57, "Spelunking, Simulation, and Slime: On Being Moved by Fiction," in Mette and Laver, eds., and "In Other Shoes: The Varieties of Empathy and Their Uses," in his *In Other Shoes* (New York: Oxford, forthcoming).

[22] Our more sophisticated responses to fiction might involve taking the narrator to be unreliable or pretending that the text is something other than a factual narrative. These responses, however, seem parasitic upon a more basic and more naive response to fiction in which we pretend that narrators are describing the real world and where we treat them as infallible authorities concerning what is true in the worlds they describe.

suggests that, in one way or another, a great deal of literary criticism involves this sort of thought or discourse. We enter inside the world of the text being discussed where fictional characters are flesh and blood people while simultaneously adopting a perspective from which we can recognize that the characters we are talking about are fictional objects and are modeled on, or used as the models for, other fictional objects in other texts. Our engagement in literary criticism naturally and seamlessly involves participation in the sorts of pretense or make-believe involved in reading and imaginatively engaging with a fictional text. Criticism is not a practice that is external to and separable from our ordinary imaginative engagement with fiction. Rather it presupposes and incorporates that engagement.

Because of this I think we should regard our talk of fictional characters as simply another sort of pretense which builds upon and extends those pretenses into which we enter in the course of our ordinary imaginative engagement with fictional texts. I will call the sorts of pretenses involved in our ordinary imaginative engagement with fictional texts P_1 *pretenses* and I will call the sorts of pretenses involved in our thought and talk about fictional characters P_2 *pretenses*. On this picture, then, a P_2 pretense involves our engaging in a P_1 pretense in which we pretend that the world is as it is portrayed in the relevant text and, in particular, that it contains various individuals who have the sorts of properties ascribed to them by that text. But, in addition to this, it will also involve us pretending that these individuals have the sorts of properties which fictional realists attribute to fictional characters. We should, in short, pretend that these individuals have a dual nature.[23]

Thus, for example, a P_2 pretense might involve our pretending that Holmes and Watson were human beings born of human parents who lived in Victorian England. But it would also involve our simultaneously pretending that Watson and Holmes are fictional characters which were created by Conan Doyle, are more or less realistic, were modeled in various ways upon various real people and fictional characters, were the inspiration for other fictional characters, and so on. When engaged in this P_2 pretense we would pretend that Holmes and Watson had a dual nature. We would pretend they are as they are

[23] This is, of course, something of an oversimplification. First, some fictional texts explicitly acknowledge the fictional status of their characters and so our ordinary engagement with these texts immediately involves us in a P_2 pretense. Second, as a result of our engaging in a P_2 pretense, we may gain new insights into the world of the relevant story and so come to alter the details of the underlying P_1 pretense. For our purposes, however, we may put these complications aside.

described in the Conan Doyle stories. But we would also pretend that they have the sorts of characteristics the fictional realist attributes to fictional objects.[24]

We can make this picture more precise as follows. Now exactly what counts true within a given pretense will be determined by a set of basic principles of generation. These will typically include certain foundational claims which are held true within the pretense. But they may also include various specific bridging principles, principles which tell us how what is true within our pretense depends upon what is really true, and there may be specific conditional principles which tell us that if certain things count as being true within our pretense then certain other things will also count as being true.[25] Thus, for example, if we are pretending that we are bakers and that mud pies are cakes then our foundational principles will include the principle that we are to pretend that we are bakers and that mud pies are cakes. Our bridging principles will include the principle that if some participant in our pretense has n mud pies then they are to count as having n cakes. And our conditional principle might include the principle that if anyone counts as having more than fifteen cakes in our pretense then they count as being a millionaire. Finally, let us say that a pretense β *extends* a pretense α just in case all the principles of generation for α are principles of generation for β.

I suggest we may extend any ordinary P_1 pretense to a P_2 pretense by adding some further principles of generation. Now I think that any P_2 pretense must include at least the following conditional principles in order to count as a P_2 pretense at all:

(P1*) If our pretense concerns a creature *a*, and if *a* is not a real thing, then *a* is a fictional character.

(P2*) If our pretense concerns *a* and *b* and if *a* and *b* are not real things then *a* and *b* count as identical within our pretense iff the fictional character of *a* = the fictional character of *b*.

[24] In pretending this, we would obviously be pretending something metaphysically and perhaps logically impossible but I argued earlier that we are able to pretend impossible things.

[25] See Walton, *Mimesis as Make-Believe*, pp. 35–43 and pp. 138–91, for an extended discussion of principles of generation. In addition to the principles noted above, our pretense will almost certainly also be governed by some restricted version of the Incorporation Principle and the Recursive Principle discussed by Evans, *The Varieties of Reference* (New York: Oxford, 1982), pp. 354–55. Note however that Evans's Incorporation Principle and his Recursive Principle are in general unlikely to hold without restriction for the sorts of reasons discussed by Walton and due to the sorts of cases of *disparity* discussed by Szabo Gendler in her "On the Relationship between Pretense and Belief."

Depending upon our interests and tastes we may then add various further principles to (P1*) and (P2*) governing when a character is to be counted as the creation of a given author, when a character is to count as realistic or unrealistic, when a character is to count as well developed, as well as when a character is to count as the expression of the author's Id, when a character is to count as occupying a given place in a Levi-Straussian structure, when a character is to count as an embodiment of Foucauldian power relations, and so on.

Note that, given that the world of a story contains *x* just in case we pretend that *x* exists when we imaginatively engage with that story, then (P1*) and (P2*) are equivalent to (P1) and (P2). Consequently, given that we cannot talk and think about fictional objects without entering into a P_2 pretense, and given that any P_2 pretense is in part constituted by our adopting (P1*) and (P2*), we should expect (P1) and (P2) to have the near platitudinous status they do.

Of course, there is no reason why a P_2 pretense should only extend a single P_1 pretense. On the contrary, a single P_2 pretense might simultaneously extend a number of different P_1 pretenses associated with a number of different stories. In such a case we might imagine a super-world somehow containing all the different worlds of those different stories with the principles of generation for each story restricted to that world. This super-world would contain all the different creatures from those worlds. We would imagine these creatures to have the dual nature of fictional characters. And by engaging in such a pretense we could compare fictional characters from different stories, we could consider which characters occurred in more than one story, we could note which characters served as models for which others, and so on.

There is obviously much more to say here. But for the moment let us contrast the view articulated above with fictional realism. I argued earlier that the fictional realist seems committed to ontic indeterminacy and to fictional objects which flout the law of noncontradiction and the symmetry of identity. The pretense theorist, in contrast, is not subject to these problems. She does not claim that fictional objects really exist, they are not denizens of the real world. Rather, she claims, we simply pretend that there are such things when we engage in a P_2 pretense. And, unlike reality, what we pretend can be indeterminate, inconsistent, and even flout the laws of identity. We may easily engage in a P_2 pretense in which we pretend there are fictional characters while still leaving it open as to whether fictional character *a* exists or whether character *a* is the same as character *b*. The resulting indeterminacies in the world of the pretense will not spill over into the real world. Likewise, we might balk at the suggestion that two objects *a*

and *b* are simultaneously both identical and distinct or that *a* is identical to *b* but that *b* is distinct from *a*. But, as I argued earlier, we can pretend these things. So pretense-theoretic accounts of fictional objects can avoid the difficulties with indeterminacy, inconsistency, and asymmetry of identity, which face fictional realism.

IV. THE ARGUMENT FOR FICTIONAL REALISM

At this point, we must turn to the argument for fictional realism noted earlier. Since that argument turned upon the alleged literal truth of utterances of certain *FOS*s, such as (1a)–(1e), we must deny that such utterances are literally true. And we must explain our mistaken intuitions to the contrary. Before doing this, however, I want to pause and raise a further doubt as to whether the fictional realist can really take *FOS*s to be literally true. For consider the following:

(6) (a) Some nineteenth-century fictional characters dote on their mothers more than any eighteenth-century character does.
(b) Conan Doyle's most famous character, Sherlock Holmes, saves the life of Queen Victoria.

Now, *prima facie*, utterances of both (6a) and (6b) seem true. Indeed, they strike me as equally plausible candidates for literal truth as (1a)–(1e). Unfortunately, it is not immediately clear what the fictional realist should say here. For fictional objects do not literally and straightforwardly have mothers in the sense that you and I do. Nor are they the sorts of things that can literally save the Queen. It seems the fictional realist must allow that, despite our intuitions to the contrary, (6a) and (6b) are not literally true. But in this case, it is not clear why we should take (1a)–(1e) to be literally true either.

If the fictional realist is to avoid this conclusion, she must presumably maintain that there is, after all, a genuine sense in which fictional characters can have mothers and save the Queen. But, since a fictional object cannot bear the ordinary property of having-a-mother or saving-the-Queen in the ordinary way, the fictional realist must either distinguish two different but equally genuine senses in which an object may bear properties, or two different but equally genuine sorts of properties an object might bear. On the first option she will distinguish between the ordinary way in which objects may bear properties (call this *exemplification*) and a special way in which fictional objects may bear the properties ascribed to them in stories (call this *encoding*). Sherlock Holmes will not *exemplify* the property of having-saved-the-Queen but he may nevertheless *encode* that property. Likewise, while fictional characters will not *exemplify* the property of having-a-mother, they will nevertheless *encode* that

property.[26] On the second option the fictional realist might distinguish between the ordinary *extra-nuclear* properties of having-a-mother and saving-the-Queen and special *nuclear* correlates of those properties which an object may bear in virtue of being ascribed those ordinary properties in a story. Sherlock Holmes will not bear the extra-nuclear property of having-saved-the-Queen but he might nevertheless bear the *nuclear* correlate of that property. And, while fictional characters will not bear the extra-nuclear property of having a mother, they will nevertheless bear its nuclear correlate.[27]

Now I do not want to consider this approach in detail but I want to point out that it faces a number of serious problems. It depends upon our making an obscure and unexplicated distinction between two sorts of predication or two sorts of property where intuitively there seem no such distinctions. It postulates a potential ambiguity in *FOS*s where intuitively there seems to be no such ambiguity. And consider the following piece of discourse:

(7) Both Oedipus and Freud were devoted to their mothers. But while Freud was a real person, Oedipus is only a fictional character.

I think it is natural to regard (7) as true but the first sentence in (7) seems to predicate exactly the same property in exactly the same way of both Oedipus and Freud. This means that in order for (7) to be true, it must be possible for fictional characters and real people to bear the same properties in the same way. In particular, it must be possible for a fictional character to have a mother in exactly the way that a real person has a mother. And this is a problem for the approach we are considering. For, on that approach, Oedipus merely *encodes* or he merely exemplifies the *nuclear correlate* of the properties

[26] See Zalta, *Abstract Objects* and *Intensional Logic and the Metaphysics of Intensionality*. Van Inwagen, "Existence and Ontological Commitment," pp. 145–49, distinguishes between the properties a fictional object *has* and those it *holds* while van Inwagen, "Creatures of Fiction," distinguishes between the properties a fictional object *has* and those *ascribed* to it (van Inwagen treats the latter relation as an unexplicated primitive). In both cases he takes the apparatus of predication to ambiguous between the two relations.

[27] For the distinction between nuclear and extra-nuclear properties, see Parsons, *Nonexistent Objects*. Parsons himself takes ordinary properties such as being-green and being-human to be nuclear properties while he takes logical properties such as existence and being-possible to be extra-nuclear properties. For Parsons fictional objects bear the nuclear properties ascribed to them in the texts where they occur and nuclear correlates of the extra-nuclear properties ascribed to them in those texts. Since I do not think we can make sense of a fictional object genuinely having a mother in the sense that real people have mothers, I would argue that Parsons must take the property of having-a-mother to be an extra-nuclear, rather than a nuclear, property and take fictional texts to ascribe its nuclear-correlate rather than the extra-nuclear property itself.

he is ascribed in the Sophocles's plays. But Freud exemplifies the extra-nuclear property of having a mother. The coherence of (7) suggests that, in the end, the distinction between encoding and exemplification and the distinction between nuclear and extra-nuclear properties are not tenable. We predicate the same properties of fictional characters that we do of real objects and we predicate these properties in the same way. This appears to leave the fictional realist with no alterative but to admit that, despite our intuitions to the contrary, (6a) and (6b) are not literally true. And this, in turn, must call into question our intuitions that (1a)–(1e) are literally true.

But why do we think that (1a)–(1e) are literally true if they are not? I think the answer has two components. First, although all talk and thought of fictional characters takes place within a P_2 pretense, we nevertheless use utterances of *FOS*s such as (1a)–(1e) to convey information about the real world. More precisely, a P_2 pretense and the P_1 pretenses it extends will be governed by a complex system of principles of generation, some of which will be bridging principles which tell us that certain things count as true within our P_2 pretense just in case certain other things are really true. Now, if a bridging principle tells us that χ is true in our pretense just in case ψ is really true then the assertion that χ, made within the scope of our pretense, may be used to convey the information that ψ is the case. Taking our mud-pie game as an example, I might exclaim "Little Johnny is eating his cake" in order to tell you that Little Johnny is eating a mud pie. I speak within the pretense in order to convey information about the real world.

In the same way, I think, our talk of fictional characters is used to convey information about the real world. I suspect that, at least in very many cases, we intend to convey various sorts of information about how the author of a story, or those reading that story, imagine the world portrayed by that story. For example, to a very rough approximation, if I say that fictional character α in fiction *f* was the model for fictional character β in fiction *g*, I am saying that during the creative process the author of *g* imagined β to be a certain way (and then described β accordingly) as a result of her imagining α to be a certain way when she read *f*. If I say that the character of γ in fiction *h* is an appalling instance of Orientalism, I am saying that during the creative process the author of *h* imagined γ in a way which reflected the worst sorts of Western stereotypes about the East. And so on. We engage in talk of the fictional characters in *f* in order to convey information about how we or others imagine the denizens of *f* to be and why we imagine them to be the way we do. This is real information about the real world. And utterances of a *FOS* made

within the scope of a P_2 pretense will count as true within that pretense just in case they convey truths about the real world.

Now, of course, nothing I have said as yet explains why it is that we take utterances of *FOS*s to be *literally* true. After all, we might recognize that my utterance during the mud-pie game of "Little Johnny is eating his cake" is both true in our pretense and conveys a truth about the real world. Still, we feel no temptation to regard my claim as literally true.

I think there are two pertinent differences between our talk of fictional characters and my warnings about Little Johnny. First, and less important, the primary purpose of our talk of fictional characters is the serious business of conveying information about the real world. This is not the primary purpose of our talk within the mud-pie game. Rather such talk functions primarily as part of the mud-pie game itself and conveys information about what is true in that game to those participating in the game. And, although mudpie-game talk can be co-opted for serious purposes, it is hard to ignore the contrast between those infrequent cases in which we use such talk seriously and our normal employment of it. Noticing this contrast brings home to us that what I am literally saying when I claim that Little Johnny is eating his cake is rather different from the information about the real world that I convey. Hence we can recognize that what I say is not literally true.

The second difference, which is much more important and much more interesting, is this. We judge that my utterance of "Little Johnny is eating his cake" is not literally true because we can distinguish between the claim this utterance makes within the scope of our mud-pie pretense and the information I am using it to convey about the real world. Within the scope of our pretense it makes a claim about cake eating. Outside of that pretense it conveys information about eating mud pies.

Crucially, we do not seem to get an analogous phenomenon in the case of P_2 pretenses. For the information we seek to convey when we utter *FOS*s is primarily information about how the author or readers of a text imagine the world portrayed by that text to be and why they imagine it that way. And there seems no way available for me to describe the content of such imaginings except by adopting the perspective of those engaged in them. I must describe the content of these imaginings from the inside, as it were, talking and thinking as if the objects imagined were real things. There might be creatures who were able to communicate the content of their imaginings externally, simply by describing the neural and physical states underpinning their acts of imagination. But we are not them. If I imagine a tree then

the only way I can talk about certain aspects of my imagining—the color, size, and shape that I imagine the tree to have, for example—requires me to describe these features from within the perspective of my imaginative act. I must describe the tree I imagine as if it were before me, in the same way I would describe a real tree.

This is equally true when we try to talk about the imaginative acts of those who write fiction. Suppose we want to describe how Virginia Woolf was influenced by Vita Sackville-West when Woolf wrote her novel *Orlando*. This will require our describing how Woolf's imaginative processes were influenced by the way she perceived Sackville-West. More precisely, we will have to describe how Woolf imagined that the world she described in *Orlando* was real, that Orlando was a real person, and that Orlando had certain of the characteristics Woolf perceived in Sackville-West. Now in order to describe all this we must enter into the world of Woolf's story ourselves, as Woolf herself did when writing it, imagining it to be real. We must talk and think as if Orlando exists and shares certain characteristics with Sackville-West. We must, in short, engage in a P_1 pretense. If we do not do this, if we resolutely stand outside the world of Woolf's story and refuse to imagine Orlando, then it seems impossible to talk about the ways in which Orlando resembles Sackville-West. And it will be impossible to isolate the ways in which Sackville-West influenced Woolf's imaginative processes.

Of course, in order to describe Woolf's imaginative processes when writing Orlando, it is not enough merely to engage in a P_1 pretense and imagine that the world of *Orlando* is real. We must also recognize that Woolf determined which features Orlando has, what happens to Orlando, and so on. And we must recognize that Orlando may be viewed in various ways by different readers. We must, in other words, recognize that the objects we are imagining are the creations of authors and the objects of interpretation for readers. And this involves our extending our initial P_1 pretense to a P_2 pretense.

What I am suggesting, then, is that when we try to describe the information about the real world conveyed by utterances of *FOS*s, we find we cannot describe it except in so far as we enter into a P_2 pretense and talk and think as if there really were fictional characters. We cannot step outside of our P_2 pretenses in order to describe this information from an external standpoint. This does not prevent the information we convey from being about the real world. Our acts of imagining are real things with real properties. It is just that the only way to describe many of the most interesting features of these acts requires our participating in the very sorts of imaginative process we seek to describe. Because of this, I think, there is a crucial difference

between our talk within the mud-pie game and our talk of fictional characters. In the former case, we are able to clearly distinguish between the claim I made about Little Johnny within the scope of the pretense and the information about the real world conveyed by my utterance for we are able to characterize this information from a perspective external to our pretense. In the case of our talk about fictional characters, this is simply not the case. It is primarily because of this, I claim, that we mistake utterances of *FOS*s such as (1a)–(1e) for literal truths.

I want to conclude by briefly considering how the arguments I have presented against fictional realism are related to the objections leveled by Russell against Meinong's Theory of Objects. Now it is not always easy to follow the course of the Russell-Meinong debate and I do not intend to enter into the niceties of Russell exegesis here. But I think the objections presented above are in the general spirit of Russell's objections though they differ from them in detail and are more general, applying not merely to Meinongian objects but to fictional objects in general.

Russell is concerned to argue that Meinong's objects lead to various violations of the law of noncontradiction and he presents at least two arguments to this effect. The first of these is that, since Meinong is committed to there being a nonexistent object which satisfies the description "the existing King of France," and since presumably the existing King of France exists, Meinong is committed both to the existent king of France existing and to the existent king of France not existing.[28] The second objection is that Meinong is committed to the existence of contradictory objects, such as round squares, for he is committed to there being an object which satisfies the description "the existing round square" and this object must be existent and round and square.[29] It has become customary for Meinongians to try and avoid Russell's objections by distinguishing between two sorts of properties or two forms of predication. Thus, as we have seen, some distinguish between the normal form of predication (exemplification) and a special form of predication (encoding). These theorists hold that while the existent King of France and the existent round

[28] See Russell, "On Denoting," *Mind*, XIV, 56 (1905): 479–93, especially p. 438. See also his critical notice of Meinong's *Über die Stellung der Gegenstandstheorie im System der Wissenschaften*, *Mind*, XVI (1907): 436–38.

[29] See Russell, "On Denoting," p. 438, and his critical notice of Meinong's *Gegenstandstheorie und Psychologie*, *Mind*, XIV (1905): 530–38, especially p. 533. See also Nicholas Griffin, "Russell's Critique of Meinong's Theory of Objects," *Grazer Philosophische Studien*, XXV/XXVI (1985/1986): 375–401.

square encode the property of existing they do not genuinely exist because they fail to exemplify it.[30] Others, as we have seen, distinguish between so-called nuclear and extra-nuclear properties. And these theorists hold that while the existent King of France and the existent round square have the nuclear property of existing they do not genuinely exist because they lack the extra-nuclear property of existing.[31] Now I do not intend to evaluate these responses to Russell here though I have already expressed some doubts as to the tenability of the exemplification/encoding distinction and the nuclear/extra-nuclear distinction. Rather I simply want to point out that the objections I have raised to fictional realism cannot straightforwardly be blocked by invoking these sorts of distinctions. If my objections are correct, then, the present-day followers of Meinong, as well as other fictional realists, are in worse shape than commonly supposed.

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[30] This, basically, is the strategy of Zalta in his *Intensional Logic and the Metaphysics of Intensionality*.

[31] This, basically, is the strategy of Parsons in his *Nonexistent Objects*.

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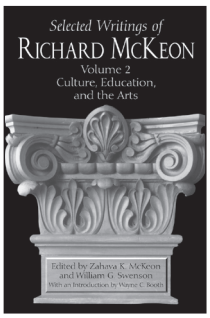

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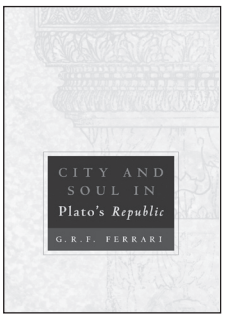

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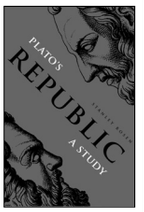

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