The Road Between
Pretense Theory and Abstract Object Theory[*]

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§1: Introduction

In this paper, I attempt to reconcile two different theoretical approaches to the philosophy of fiction, namely, the theory of abstract objects (hereafter 'object theory')[1] and pretense theory.[2] I think that the seminal insights of both theories are, for the most part, consistent with one another. To make this idea plausible, I spend a large part of what follows both correlating the basic notions of pretense theory with those of object theory and showing how pretense-theoretic notions can be systematized within the framework of object theory. At the end of the paper, I consider a point of apparent inconsistency between the two theories. This concerns the question, do names such as 'Zeus' and 'King Lear' denote objects? Object theorists believe they do, while pretense theorists think not. However, there is a way to reconcile these opposing answers to some extent, namely, by showing that the formalism of object theory has an interpretation on which fictional objects become entities that a pretense theorist already

accepts. So if a pretense theorist is already committed to the existence of such entities, they should accept that names such as 'Zeus' and 'King Lear' denote, for this offers a more systematic analysis of language. Or so I hope to show.

The key to the reconciliation of object theory and pretense theory will involve an appeal to a Wittgensteinian approach to the meaning of names of stories and fictional characters. The traditional Wittgensteinian approach to the meaning of the names of fiction takes the meaning of a term like 'Holmes' to be constituted by its pattern of use. But such accounts typically don't allow us to get very precise about the patterns in question. Notice that, at the very least, such an approach quantifies over, and is committed to the existence of, *patterns*. I shall argue that the formalism of object theory, in its application to fiction, can be interpreted as systematizing such patterns. The 'abstract objects' of the formal metaphysical theory are reconceptualized as patterns of use and patterns of behavior in general. The semantic analyses of fictional discourse which are constructed in terms of object theory then take on new significance, for names of fiction will denote entities that the pretense theorist already accepts. Thus, we will have forged not only a way of making the Wittgensteinian view about meaning more precise, but also a way of reconciling two approaches to the philosophy of fiction that seem to be heading off in different directions.

I'll follow the same strategy that the pretense theorists follow, namely, engage initially in talk of abstract and fictional objects (such as stories and characters) and at the end show how to reconceive this talk in an acceptable way. So, as I correlate the notions of pretense theory with object theory, I'll help myself to all of our usual talk about fictional objects.

§2: Some Data To Be Explained

Before we begin our rapprochement, it is worthwhile to set out clearly before us just what it is we are trying to explain. I shall suppose that the data fall into four principal groups. The first group consists of certain historical facts:

- The ancient Greeks worshipped Zeus.

- Sherlock Holmes still inspires modern criminologists.

- Holmes is more famous than any real detective.

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[1]The principal development of object theory occurs in Zalta [1983] and [1988].
[2]The principal development of pretense theory occurs in Walton [1990].

- Ponce de Leon searched for the fountain of youth.

- If you had asked Ponce de Leon what he was doing in the swamps of Florida, he would have said that he was searching for something.

- Teams of scientists have searched for the Loch Ness monster, but since it doesn't exist, no one will ever find it.

The second group of data consists of the ordinary valid inferences we derive from the above:

- Ponce de Leon searched for the fountain of youth.
  Therefore, Ponce de Leon searched for something.

- The ancient Greeks worshipped Zeus.
  Zeus is a mythical character.
  Mythical characters don't exist.
  Therefore, the ancient Greeks worshipped something that doesn't exist.

The third group of data consists of facts about what goes on in a fiction:

- In Dostoyevsky's *The Brother Karamazov*, Dmitri, Ivan, and Alyosha Karamazov are brothers.

- In Günther Grass's *The Tin Drum*, Oskar Mazerath decides to stop growing at the age of 3.

The final group of data consists of ordinary statements that someone might make in the context of thinking about fictions:

- Some fictional characters are interesting because they find themselves in situations in which they appear to be able to choose their identity, though it sometimes turns out that factors beyond their control, antecedent to the moment of choice, have already determined the kind of person that they would be.

- There are fictional characters that no one admires.

- Thinking about the lives of fictional characters helps us to reflect on the roles one might assume in real life, helps to inform us about the nature of evil so that we may be better prepared to do battle with it, helps us to understand and sympathize with others, and enables us to come to grips with our own feelings about certain situations in which we might find ourselves.

- All of the characters in this novel are fictional and any similarity between them and real individuals is purely coincidental and not intended by the author.

I take it that we shall have given an explanation of these data if we can analyze them in a systematic way. Such an analysis has to obey certain constraints. (1) It should preserve the truth values and logical consequences of the original. For example, a regimentation which analyzes the descriptions of fictional entities the first group of data (e.g., 'the fountain of youth') in terms of Russell's theory of descriptions would not obey this constraint, since such an analysis would turn truth into falsehood. Similarly, no Russellian analysis of names in terms of definite descriptions would be acceptable. (2) It has to discriminate the truth of "The ancient Greeks worshipped Zeus" from the falsity of "The ancient Greeks worshipped Sherlock Holmes". (3) It should not make sentences such as the last example in the fourth group vacuously true; any systematization that represents "All of the characters in this novel are fictional ... " as vacuously true (on the grounds that there are no fictional characters) will get the wrong truth value for the sentence "All of the characters of this novel are both aliens from Mars and natural numbers" (for it will say that this sentence is true instead of false). (4) The systematization should not analyze such 'intensional' verbs as 'search for' as relational when they appear in such sentences as "Bill Clinton searched for Hillary Clinton" but as non-relational when they appear in such sentences as "Ponce de Leon searched for the fountain of youth". Similarly for comparative verbs like 'is more clever than' and 'is more famous than'.

The systematization described in what follows in fact obeys these constraints. It clearly delineates fact from fiction, but allows us to talk about the latter. The basic notions of 'story', 'according to the story', 'character', 'fictional', etc., have been defined in terms of a few basic notions. Moreover, many of the intuitions that pretense theorists have about these notions are preserved in the definitions. To establish this, we now track some of the basic features of pretense theory.

§3: Tracking Features of Pretense Theory

In his intriguing book *Mimesis as Make-Believe*, Kendall Walton develops a conceptual framework for discussing fiction. He asserts numerous claims about fiction that are couched in terms of this framework. By reviewing

the main claims, we will get a good sense of the notions that are involved in the conceptual framework:

> The propositions fictional in the world of a game are those whose fictionality is generated by virtue of the principles and props of the game—the propositions which, because of the principles in force and the nature of the props, are to be imagined by participants in the game.   (p. 59)

> Each fictional world is associated with a particular class or cluster of propositions—those propositions that are fictional in that world.   (p. 64)

> ... classes [of propositions] constituting fictional worlds, unlike those constituting possible worlds, need not be either consistent of complete.   (p. 66)

> What is important is various properties that propositions some-times possess: the property of being fictional and that of being fic-tional in a particular representational work or game of make-believe or dream or daydream. It is natural to express these properties with the help of phrases appearing to refer to fictional worlds ... , and so for convenience, I will often do so. But my explanations of these properties do not presuppose any such reference.   (p. 67)

> A prop is something which, ... , mandates imaginings. Proposi-tions whose imaginings are mandated are *fictional*, and the fact that a proposition is fictional is a *fictional truth*. Fictional worlds are associated with collections of fictional truths; what is fictional is fictional in a given world—the world of a game of make-believe, for example, or that of a representation work of art.   (p. 69)

> Works of fiction are simply representations in our special sense, works whose function is to serve as props in games of make-believe.   (p. 72)

> Napoleon is an object of *War and Peace*. ... A thing is an object of a given representation if there are propositions about it which the representation makes fictional.   (p. 106)

> A proposition is fictional in the world of a game just in case there is a prescription that it is to be imagined by appreciators. (p. 208)

From this selection, it is clear that Walton's conceptual framework includes the following notions: game, make-believe, participant, prop, imaginings, proposition, and a variety of forms of the notion of fiction.

In the above quotations and in various other places in Walton's book, we find: (a) 'fiction' used as a noun, (b) 'fictional' used as an adjective (as in 'fictional world' and 'fictional truth'), (c) 'fictional' used as a predicate adjective (as in '... is fictional'), (d) 'is fictional in' used as a part of a verb phrase (e.g., when something is said to be 'fictional in a game, work, or world'), (e) 'it is fictional that' used as a sentential adverb, and (f) constructions such as '...is, fictionally, ...' (as in "The saddle of a mountain is, fictionally, a horse's saddle") and '... make it fictional ...' (as in "The cloud is a prop which makes it fictional that there is an angry face"). It is not easy to work out just how to organize and analyze these various uses. The variety of uses appears to be somewhat unsystematic, and there is a danger that the various forms of the word 'fiction' may start to lose their sense.

Nevertheless, there is much to be gained in approaching fiction funda-mentally in terms of the notions of game, make-believe, and props.[3] I'll return to the discussion of these particular notions in the final section of this paper. However, in the next section, I'll focus upon the regimenta-tion of the various notions of fiction, story, and character. In my previous work, I have developed a way of precisely regimenting these notions. I now want show how this regimentation can be correlated with Walton's language and claims. I hope to establish that the regimentation captures a certain systematicity in Walton's use of these notions and so falls within the spirit of pretense theory.

In what follows, I shall presuppose that the reader has some basic familiarity with object theory. In this theory, the notions of n-place re-lation ('F^n'), property ('F^1'), proposition ('F^0' or 'p'), x is an abstract object ('$A!x$'), x is an ordinary object ('$O!x$'), x encodes F ('xF'), and $x_1, \ldots, x_n$ exemplify F^n ('$F^n x_1 \ldots x_n$') have all been regimented within the framework of an axiom system. There are axioms that assert the existence of relations, properties, and propositions, as well as an axiom that asserts the existence of abstract objects. And there are conditions that state when relations F and G, propositions p and q, and objects x and y, are identical. Those readers unfamiliar with the theory will find a

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[3]After reading Deutsch [2000] in manuscript, I am inclined to believe that the notion of 'making up' is more fundamental than the notion of 'make believe' for the analysis of fiction. As a project for future investigation, I hope to examine the relationship between Deutsch's theory and object theory. One item of particular interest will be how the definition of 'x authors s', which we discuss in Section 4, will have to be modified to accomodate Deutch's insight.

sketch of the basic ideas in the Appendix to the present paper. In the next section, I presuppose that the reader knows why it is that for every proposition p, there exists a corresponding property *being such that p* ('$[\lambda y\, p]$'). I also presuppose that the reader knows that: (1) there are abstract objects (namely, situations) that encode only propositional properties, (2) that a proposition p is true in situation s ('$s \models p$') just in case s encodes the propositional property being such that p (i.e., just in case $s[\lambda y p]$), and (3) that these ideas yield a derivative sense of 'encode' in which abstract objects (and, in particular, situations) encode propositions.

§4: Correlating Pretense Theory and Object Theory

In previous work,[4] the theory of fiction was constructed with the aid of three special theoretical notions. The first is the authorship relation. We use 'Axy' to assert that x authors y. The second is a relation of temporal precedence. We use '$p < q$' to assert that p obtained before q. The third is the logical notion of relevant entailment. We use '$p \vdash_{\mathrm{R}} q$' to assert that q is relevantly implied by p. Work in tense logic and relevance logic gives us a pretty good idea of what the latter two notions amount to—we need not commit ourselves in this paper to a particular tense logic or relevance logic. We shall assume that the reader has both an intuitive grasp of the authorship relation as well as a grasp of the role it plays in pretense theory.

According to pretense theory, when someone authors a story, they produce certain sounds or marks ('representations') which serve as props that somehow mandate or prescribe that listeners/readers are to imagine certain propositions (these propositions become fictional in 'the world of the story'). None of this, however, tells us what a story or work of fiction is. The following definition fills in the blank:[5]

> x is a *story* $=_{df}$ x is a situation that is authored by some concrete object.

In formal terms, we have:[6]

$$Story(x) \;\;=_{df}\;\; Situation(x) \;\&\; \exists y(E!y \;\&\; Ayx)$$

Since this definition identifies a story as an abstract object, it follows that stories are individuated by the propositional properties they encode. Indeed, given our derivative sense of 'encodes', we may say that stories are individuated by the propositions they encode.[7] Since we have defined stories as a subspecies of situation, we may define the story operator 'According to story s, p' in the same way that we defined the notion 'p is true in situation s', namely, as $s \models p$.

Now the first point of correlation between object theory and pretense theory concerns the way our identification of stories can be reconciled with Walton's talk about 'fictional worlds'. Whereas Walton takes fictional worlds to be constituted by (classes of) propositions (pp. 64,66), our stories encode propositions. However, I think it preferable to talk in terms of 'stories' instead of 'fictional worlds'. Typically, a 'world' is a complete and consistent situation, where:

$$Complete(s) \;=_{df}\; \forall p(s \models p \;\vee\; s \models \neg p)$$

$$Consistent(s) \;=_{df}\; \neg\exists p(s \models p \;\&\; s \models \neg p)$$

At least, *possible* worlds are complete and consistent in these defined senses.[8] But when Walton speaks of 'fictional worlds', he relaxs our conception of worlds in two ways, one of which is innocuous and the other of which is problematic. First, he allows that (the propositions constituting) fictional worlds can be inconsistent. Insofar as 'fictional world' is supposed to be more inclusive than 'possible world', this is innocuous enough. Object theory can make sense of this kind of talk. We can precisely define *impossible worlds* and identify inconsistent fictional worlds in terms of these worlds. Impossible worlds are those situations that are complete but not consistent (in the above senses). This notion has been the focus of recent work.[9]

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[4]See Zalta [1983] (pp. 91-99) and [1988] (pp. 123-129, 143-150).

[5]What follows is equivalent to the definition constructed in Zalta [1983], p. 91.

[6]Readers unfamiliar with object theory should note that the predicate '$E!$' stands for the property of being spatiotemporal or concrete. In the Appendix, you will find that we have defined ordinary objects to be the kind of thing that could be spatiotemporal, and defined abstract objects as: not the kind of thing that could be spatiotemporal.

[7]If you are a pretense theorist and are feeling uneasy about this identification of stories with abstract objects, remember that at this point, we are helping ourselves to talk about abstract objects. We will, in due course, discharge this talk in terms of talk that may be more acceptable to you.

[8]In object theory, we have defined a possible world to be a situation x that (encodes only propositional properties and) *might* have encoded all and only the true propositions. This implies that possible worlds are complete and consistent, inthe senses just defined. See Zalta [1993].

[9]See Zalta [1997] and some of the other theories of impossible worlds described in

However, Walton also relaxes the notion of world in a problematic way, by supposing that there are fictional worlds which are not complete. This strikes me as somewhat inappropriate. The notion of 'world' should be reserved to refer to a complete situation. It therefore strikes me as improper to use the definite description 'the world of a game of make-believe' (as Walton does on p. 69 and elsewhere). There are just too many worlds that can be correlated with a given consistent story. For example, if we assume for the moment that the Conan Doyle novels are consistent (in the sense defined above), then there are numerous possible worlds 'consistent with' those novels. There is no such thing as *the* world of the Conan Doyle novels.

So, in what follows, we shall assume that possible worlds are complete and consistent, and that stories are (typically) incomplete and sometimes inconsistent. Accordingly, we shall not employ the notion of 'the world of a fiction'. However, if we operate under the translation scheme that 'the world of story s' in pretense theory correlates with 'story s' in object theory, we can reconcile the two apparently distinct theoretical languages. Under this translation scheme, we preserve the truth of the Walton's claims on pp. 64, 66, and 69, for the claims which result under the substitution are, respectively:

> Each story is associated with a particular class or cluster of propositions—those propositions that are fictional in that story.
>
> ... classes [of propositions] constituting stories, unlike those constituting possible worlds, need not be either consistent of complete.
>
> ... Stories are associated with collections of fictional truths; what is fictional is fictional in a given story—the story of a game of make-believe, for example, or that of a representation work of art.

I take it that the pretense theorist would be able to accept the above. Moreover, we may regiment the pretense theoretic notion 'fictional in' as follows:

$$p \text{ is fictional in } s \ =_{df} \ Story(s) \ \& \ s \models p$$

This definition forges another link between the notions of pretense theory and our framework for fiction.[10] A simple generalization of this last

the special volume of the *Notre Dame Journal of Formal Logic* which contains Zalta [1997].

[10]Note that we can now define the notion 's is a *true story*' as follows: every proposition fictional in s is true.

definition regiments Walton's notion 'p is fictional':

$$p \text{ is fictional } =_{df} \ \exists s(Story(s) \ \& \ s \models p)$$

In other words, p is fictional if it is true in some story. This corresponds to Walton's claim (p. 69) that what is fictional is fictional in a given world. Of course, this is a rather weak sense of what it is for a proposition to be fictional, for it allows true propositions to be fictional. But the definition can be strengthened if there is a need to do so.[11]

Next, we can appeal to pretense-theoretic notions to flesh out the authorship relation. As noted above, the authorship relation was taken as primitive in object theory, but pretense theory seems like a good place to look for its analysis. Given the quotations from pp. 59 and 69 of Walton's book, it seems natural to suggest the following analysis of the authorship relation:

> x *authors* s iff x produces a work (prop) such that every proposition that the work mandates us to imagine is true in s

We can make the form of the definition a little clearer if we give it more structure and use one of our regimented notions. We first define:

> y *is a prop for* s iff y is a prop & for any proposition p, if y mandates that p is to be imagined, then $s \models p$.

Now we may define:

> x *authors* s iff $\exists y[x$ produces y & y is a prop for $s]$

This reformulated definition does show that the notions of pretense theory and object theory can serve to inform one another. This definition allows us to *derive* one of the basic claims of pretense theory, namely:

> *Claim*: If a prop of story s mandates that proposition p is to be imagined, then p is fictional in s.
>
> *Proof*: Assume that y is a prop for story s and that y mandates that some proposition, say q, is to be imagined. We want to show that q is fictional in s. By the first conjunct of our assumption, we know from the definition of 'y is a prop for s' that for any proposition p,

[11]If we wish to excludes facts from being classified as fictions under this definition, we conjoin the clause $\neg p$ to the definiens.

if y mandates that p is to be imagined, then $s \models p$. So by the second conjunct of our assumption, it follows that $s \models q$. But since s is a story and $s \models q$, it follows from the definition of 'fictional in' that q is fictional in s.

Notice that this is Walton's claim on p. 69, where he says that propositions whose imaginings are mandated are fictional.

(It is worth digressing at this point to mention Fred Kroon's observation that the definition of authorship we've just introduced could be further enhanced. Instead of quantifying over props in the defininiens, we could define a 3-place authorship relation as follows:

x authors s via y iff x produces y & y is a prop for s

The advantage of this definition is that it allows us easily to distinguish *genuine* coauthorship from *coincidental* coauthorship. In cases of genuine coauthorship, persons x_1 and x_2 together produce a single prop y which is a prop for story s. In terms of our definition, we have both x_1 authors s via y and x_2 authors s via y. In cases of coincidential coauthorship, persons x_1 and x_2 independently produce separate and distinct props y_1 and y_2 both of which are props for the same story s. In terms of our definition, x_1 authors s via y_1 and x_2 authors s via y_2. I endorse this friendly amendment to the present series of definitions. I believe that everything I say in what follows is either already consistent with this revised definition or could be reformulated so as to be consistent with this revised definition of authorship.)

Despite these interesting features of our definition of the authorship relation, the definition leaves several open questions. For one thing, it gives us no indication as to what kind of thing a prop is. It seems reasonable to assume that props are concrete objects of various sorts and we shall proceed on that assumption. This seems consistent with pretense theory. A second question that the definition of authorship forces us to consider is the theoretical status of the notions of 'x produces y' and 'y mandates that p is to be imagined'. These seem to be taken as basic and not further defined in pretense theory. Consequently, if the above definition of authorship is to be added to the definitions of object theory, 'x produces y' and 'y mandates that p is to be imagined' will have to replace 'x authors s' as primitive. It is always good to know what primitives are employed in your theory.

A third question that arises in connection with the definition of authorship is how a (representational) artifact or prop for a story mandates which propositions are true in the story. Presumably, this will be different for different media. However, in the case of ordinary novels produced in a print medium, the manuscript or other copy of the novel will contain (tokens of) linguistic expressions which themselves designate some (but not necessarily all) of the propositions true in the story. An exact specification of the relationship between the props and the group of propositions true in the story goes beyond the present essay, but we can give some indication of how this goes. The basic idea involves the notion of relevant entailment (which we mentioned earlier). As we read each sentence S in a manuscript or other copy of a novel, we typically conclude that the proposition p that S designates is true in the story s which is being presented by this novel (since we typically assume that this is one of the propositions that the prop mandates us to imagine). However, we don't conclude only that $s \models p$, but also that any proposition relevantly entailed by p is also true in s. In previous work, I have suggested that the following Rule of Closure is operative:

> *Rule of Closure*: All of the relevant consequences of propositions true in s are true in s.

In formal terms:

If (a) $s \models p_1$ & ... & $s \models p_n$, and (b) $p_1, \ldots, p_n \vdash_R q$, then $s \models q$

Alternatively, this rule could be recast in terms of Walton's notion of 'mandates that p is to be imagined' as follows: if a prop y mandates that p is to be imagined and q is a relevant consequence of p, the y mandates that q is to be imagined. Surely the logic of fiction will include some such formulation of this rule. The exact nature of this logic of fiction is one of the more interesting open philosophical questions.[12]

Despite the fact that the definition of authorship leaves open certain questions, it nevertheless does seem to capture an insight which connects the two theoretical frameworks under discussion. One last group of connections concerns the notion of a 'character'. In object theory, this notion is first defined relative to a story:

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[12]See Parsons [1980], pp. 175 - 182, for an excellent discussion of the issues involved here.

> *x is a character of s* $=_{df}$ there is some property F such that the proposition that x exemplifies F is true in s

In formal terms, this becomes:

> $Character(x,s) =_{df} \exists F(s \models Fx)$

This definition allows all manner of animate and inanimate objects to be characters of stories. Nor does it exclude concrete, spatiotemporal objects from being characters of stories. I take it that our definition of 'character of' corresponds to Walton's claim (p. 106) that a thing is an *object of* a given representation if there are propositions about it which the representation makes fictional. Here again, then, is a point at which we can correlate the notions of pretense theory with the regimented notions of our object-theoretic approach to fiction.[13] Of course, we may say that an object x is a character just in case there is some story s such that x is a character of s:

> $Character(x) =_{df} \exists s[Character(x,s)]$

It is important here to distinguish 'character' in this sense from 'fictional character', which we have not yet defined.

We may conclude this series of observations correlating pretense and object theory by focusing on the distinction between a proposition p being fictional (in a story), which was defined above, and a character being fictional. As we saw above, a proposition's being fictional is simply a matter of its being true according to some story. However, for a character to be fictional, it must 'originate' in some story. In previous work, we have defined this notion of 'originates' in terms of our tense-theoretic primitive (mentioned above) as follows:

> *x originates in s* $=_{df}$ *x* is an abstract object that is a character of s and x is not a character of any earlier story.

In formal terms, this becomes:

> $Originates(x,s) =_{df} A!x$ & $Character(x,s)$ &
> $\quad \forall y \forall z \forall s'((Azs' < Ays) \to \neg Character(x,s'))$

So whereas Holmes originates in the Conan Doyle novels (since he is an abstract character of the stories and is not a character of any earlier story),

London does not (it is not abstract). Similarly, Gregor Samsa originates in Kafka's *The Metamorphosis*.

With this definition of 'originates', we may say, of a *character*, that it *is fictional* whenever the character originates in some story or other:

> *x* is a *fictional character* $=_{df}$ *x* is a character and *x* originates in some story

In formal terms, this becomes:

> $FictionalCharacter(x) =_{df} Character(x)$ & $\exists s(Originates(x,s))$

This distinguishes the notion of 'fictional' as it applies to characters from Walton's notion of 'fictional' that applies to propositions. Presumably, this regiments another of the many different ways in which he uses the notion 'fictional' and shows how the fictionality of characters is conceptually dependent upon the fictionality of propositions, among other things. Indeed, we can also regiment our talk of 'fictional detectives' (as in "Holmes is a fictional detective"), 'fictional student' (as in "Raskolnikov is a fictional student") as follows:

> $Fictional\text{-}F(x) \quad =_{df} \exists s \exists x[Story(s)$ & $Originates(x,s)$ & $s \models Fx]$

So if 'S' stands for the property of being a student, and 'r_{CP}' stands for the Raskolnikov of *Crime and Punishment*, we may analyze the fact that Raskolnikov is a fictional student as:

> $Fictional\text{-}S(r_{\text{CP}})$

In what follows, I shall assume that for any property F, there is a property that corresponds to *Fictional-F*, even though this is not strictly guaranteed by the axioms we have employed so far.[14]

We conclude this section by reminding the reader that in object theory, the comprehension principle for abstract objects is used to identify characters as abstract objects only when the character is fictional. The following claim has the status of an axiom:

> Axiom: If character x originates in story s, x is (identical to) the abstract object that encodes all and only the properties F such that according to s, x exemplifies F.

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[13]Note also the similarity with Parsons definition 'x occurs in s' in his [1980] (p. 57).

[14]In other words, I shall suppose that we can consistently add the claim that there is such a property. I don't think too much will hang on this claim should I turn out to be wrong.

In formal terms:

Axiom: $Originates(x, s) \rightarrow x = \imath y[A!y \,\&\, \forall F(yF \equiv s \models Fx)]$

It follows from this axiom that if x originates in s, then x encodes a property F iff according to s, x exemplifies F. Consider then, what follows from the fact that Sherlock Holmes originates in the Conan Doyle novels. If we introduce the name 'Holmes$_{\mathrm{CD}}$' to indicate that we are referring to the Sherlock Holmes of the Conan Doyle novels, we may infer the following biconditional from the previous fact given our axiom:

Holmes$_{\mathrm{CD}}$ encodes F if and only if according to the Conan Doyle novels, Holmes exemplifies F

(In the above and in what follows, we drop the subscript on 'Holmes' relativizing the name to the corresponding story only in those contexts where it is clear what the relevant story is.) In formal terms, this becomes:

$h_{\mathrm{CD}}F \equiv \mathrm{CD} \models Fh$

Of course, we may disagree with one another about which properties are in fact attributed to Holmes in the Conan Doyle stories. But our disagreement is grounded in a more fundamental agreement, namely, that Holmes is in fact constituted by (i.e., encodes) those properties attributed to him in the novels, whichever ones those turn out to be. That fundamental point of agreement is captured by our axiom.

In what follows, we shall assume that the true sentences of the form "According to the Conan Doyle novels, Sherlock Holmes is (a(n)) F" ('CD $\models Fh$') have been added to object theory as facts. The facts asserted by these 'prefixed story-operator' sentences serve to orient us philosophically to the analysis of a wide variety of other facts. For example, consider ordinary sentences of English such as 'Sherlock Holmes is a detective', which are unprefixed by a story-operator but for which truth is preserved when the relevant story-operator is prefixed. It is an *auxiliary hypothesis* of object theory that the copula 'is' (in such unprefixed sentences) is ambiguous between encoding and exemplification predication. The true reading of the English will be:

$h_{\mathrm{CD}}D$

This is now provable as a consequence of the theory. The false reading will be:

Dh_{CD}

Holmes is an abstract object and so doesn't exemplify the property of being a detective, or any other property that would imply that he has a spatiotemporal location.

In what follows, I shall assume that the reader can use the foregoing ideas to analyze the data described in Section 1. For the most part, this is straightforward. Some of the more subtle issues affecting the analysis have been discussed in Zalta [1988] and [1983].[15] If the project in the final part of the present paper is successful, then the analyses of these data in object theory should be acceptable to a pretense theorist, for we hope to justify the *referential* use of names of fictional characters from the point of view of pretense theory. None of the special paraphrases that pretense theorists offer for the kinds of data discussed in Section 1 will be necessary. Before we turn to the final part of the paper, however, it would serve well to examine a subtle and interesting class of data which we didn't discuss in Section 1. This discussion will show how awkward the pretense theoretic paraphrases can become when names of fictional characters are treated as 'empty'.

§5: Special Problem Cases for Pretense Theory

There are some very interesting issues that arise in connection with the analysis of (the logical consequences of) sentences involving comparatives. Consider the following two sentences:

(GC) Pinkerton is as clever as any fictional detective.

(GF) Pinkerton is as famous as any fictional detective.

('GC' and 'GF' abbreviate 'general clever sentence' and 'general famous sentence', respectively.) Suppose both that 'Pinkerton' names a real detective who is still alive and that these two sentences are true.[16] Now given the fact:

(1) Sherlock Holmes is a fictional detective,

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[15]See Zalta [1988], pp. 123-129, and 145-150; and [1983], pp. 91-99, and 50-52.

[16]The second sentence is probably false of Allan Pinkerton (1819-1884), the famous Scottish-American detective who was appointed the first city detective in Chicago in 1850 and who made his reputation when he recovered a large sum of stolen money and discovered a plot to murder Abraham Lincoln in 1861.

(GC) and (GF) imply the following, respectively:

(SC) Pinkerton is as clever as Holmes.

(SF) Pinkerton is as famous as Holmes.

(We may think of (SC) and (SF) as the 'specific clever sentence' and 'specific famous sentence', respectively.) Clearly, these are valid consequences of our data.

The two interesting puzzles concerning (SC) and (SF) are: (a) how do we analyze them so as to deal with the subtle difference that in (SC), Pinkerton's (exemplified) degree of cleverness is being compared to the degree of cleverness that Holmes exemplifies *in the story*, whereas in (SF), Pinkerton's (exemplified) degree of fame is being compared to the degree of fame that Holmes exemplifies *simpliciter*; and (b) how do we analyze them so that, together with fact (1), they are consequences of (GC) and (GF), respectively. These puzzles become more acute when we consider the pretense-theoretic analyses of these sentences. Let us consider these first.

I shall assume that any analysis of our data must begin with a certain uncontroversial ordinary-language definition of the comparative relation. I shall formulate this definition in terms of the variable 'G', which ranges over those properties that can be subject to comparisons of this kind. Henceforth our property variable 'F' will now be used as a *constant* which denotes the property of being famous (this will make its appearance shortly). Here, then, is a reasonably uncontroversial understanding of the comparative relation:

(A) x is as G as y iff there is a degree d_1 of G and a degree d_2 of G such that: (1) x is G to degree d_1, (2) y is G to degree d_2, and (3) d_1 is comparable to d_2 (i.e., $d_1 \geq d_2$).

The variable 'G' can range over such properties as intelligence, tallness, fame, etc. If we let G be the properties of cleverness ('C') and fame ('F'), respectively, and we use $As\text{-}G\text{-}As(x, y)$ to represent the apparent logical form of 'x is as G as y', then we have the following two examples of (A):

(AC) $As\text{-}C\text{-}As(x, y)$ iff there is a degree d_1 of cleverness and a degree d_2 of cleverness such that: (1) x is clever to degree d_1, (2) y is clever to degree d_2, and (3) $d_1 \geq d_2$.

(AF) $As\text{-}F\text{-}As(x, y)$ iff there is a degree d_1 of fame and a degree d_2 of fame such that: (1) x is famous to degree d_1, (2) y is famous to degree d_2, and (3) $d_1 \geq d_2$.

We may refer to (AC) and (AF) as the 'analysis of comparative cleverness' and the 'analysis of comparative fame', respectively. If we ignore fictional objects, then presumably (AC) and (AF) offer us a general analysis of the relations *as clever as* and *as famous as*, respectively.

Notice that since a pretense theorist takes the name 'Holmes' to be empty, he or she can't proceed to get an analysis of (SC) and (SF) by applying (i.e., instantiating the variables of) (AC) and (AF) to the objects Pinkerton and Holmes$_{CD}$. Since there is no such thing as Sherlock Holmes, Pinkerton can't bear a relation to him. At best, a pretense theorist might say that we can apply the relations to the objects Pinkerton and Holmes$_{CD}$ only within a certain kind of pretense. But whereas we might agree that (SC) does require that the comparison take place within a kind of pretense, (SF) is rather different. Although (SF) is a statement that presupposes that there is a pretense, the comparison is not being made within that pretense. But since a pretense theorist might even refuse to accept this, let us put the issue aside. Presumably, a pretense theorist can suggest that we can think of (AC) and (AF) as sentence schemata that can be applied to the *names* 'Pinkerton' and 'Holmes' and that when they are so applied, the right-hand sides of the resulting biconditionals give the true analysis/logical form of the ordinary English. That is, the pretense theorist can approach the analysis of our data by first applying (AC) and (AF) to the names 'Pinkerton' and 'Holmes$_{CD}$' as follows:

(AC$_i$) $As\text{-}C\text{-}As(\text{Pinkerton}, \text{Holmes}_{CD})$ iff there is a degree d_1 of cleverness and a degree d_2 of cleverness such that: (1) Pinkerton is clever to degree d_1, (2) Holmes$_{CD}$ is clever to degree d_2, and (3) $d_1 \geq d_2$.

(AF$_i$) $As\text{-}F\text{-}As(\text{Pinkerton}, \text{Holmes}_{CD})$ iff there is a degree d_1 of fame and a degree d_2 of fame such that: (1) Pinkerton is famous to degree d_1, (2) Holmes$_{CD}$ is famous to degree d_2, and (3) $d_1 \geq d_2$.

The pretense theorist can then proceed by focusing on the right sides of these applications of (AC) and (AF), arguing that the left sides of the resulting biconditionals are only the apparent logical form of the sentence in question. (SC) and (SF) don't assert that a simple relationship holds, but rather assert more complex sentences involving quantifiers.

Let's consider, then, the right-hand side of (AC_i):

(RS_c) There is a degree d_1 of cleverness and a degree d_2 of cleverness such that: (1) Pinkerton is clever to degree d_1, (2) Holmes$_{\text{CD}}$ is clever to degree d_2, and (3) $d_1 \geq d_2$.

(RS_c) ('right-side of the applied clever analysis') is *not yet* the proper pretense-theoretic analysis of (SC), for it hasn't yet addressed the fact that the second clause refers to the degree of cleverness that Holmes has in the Conan Doyle novels.

Crimmins [1999] suggests how to do this, for he offers a pretense-theoretic analysis of a sentence very similar to (SC).[17] His analysis of (SC) would be as follows:

(2) The degree of cleverness that actually is such that in the Sherlock Holmes stories there is portrayed there being a person named 'Holmes' with that degree of cleverness, is such that Pinkerton's degree of cleverness is comparable to the former.

Since I am unable to determine what Walton's analysis of (SC) would be, let us focus on Crimmins' analysis.

So how are we supposed to derive (2) from (RS_c)? Well, it will not do any real violence to (2) if we reparse it a little as follows:

(2′) There is a degree d_1 of cleverness and a degree d_2 of cleverness such that: (1) Pinkerton is clever to degree d_1, (2) in the Conan Doyle novels there is portrayed there being a person named 'Holmes' who is clever to degree d_2, and (3) $d_1 \geq d_2$.

Let us, then, take (2′) instead of (2) as Crimmins' analysis of (SC). It should be clear that Crimmins can derive (2′) from the analysis (RS_c) if he supposes (as it seems he does) that the proper pretense-theoretic analysis of the second clause:

Holmes$_{\text{CD}}$ is clever to degree d_2

is:

In the Conan Doyle novels there is portrayed there being a person named 'Holmes' who is clever to degree d_2.

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[17] Consider sentence (2) on p. 3 of Crimmins [1999].

Now it is unclear why the latter should be considered an acceptable analysis or paraphrase of the former. But let us put to one side the serious problem lurking here. Moreover, let us presume that the subscript on the name 'Holmes' is the marker which tells us that in (RS_c) we should paraphrase the second clause and not the first.

If the above is a correct understanding of the pretense theoretic account of our data, then our two puzzles (a) and (b) remain unsolved. We can't generalize this entire procedure to produce an analysis of (SF). For if the pretense theorist were to follow the same steps as we just followed, he or she would produce the following analysis of (SF):

There is a degree of fame d_1 and a degree of fame d_2 such that: (1) Pinkerton is famous to degree d_1, (2) in the Conan Doyle novels there is portrayed there being a person named 'Holmes' who is famous to degree d_2, and (3) $d_1 \geq d_2$.

But this, of course, is the wrong analysis, for (SF) does not compare Pinkerton's fame with the degree of fame Holmes enjoys *within* the fiction, but rather with the degree of fame Holmes enjoys outside the fiction, in his guise as a well-known fictional character.

The second puzzle also remains: it is unclear how the pretense theoretic analyses of (GC) and (1) are supposed to imply the pretense-theoretic analysis of (SC). Although a pretense theorist might claim that (AC) is to be recast as a schema that can be applied to the 'empty names' of fiction, or that we can pretend to apply (AC) to Pinkerton and Holmes, these moves won't help us here, for we have a genuine (non-pretend) *valid* inference to account for. It is just a simple fact that (GC) and (1) together imply (SC). The same goes for (GF), (1), and (SF). It is unclear whether the pretense-theoretic analyses (or paraphrases) of the premises will imply the pretense-theoretic analysis (or paraphrase) of the conclusion. Even though we haven't discussed here how the pretense theorist would paraphrase (GC) and (1), there is a *prima facie* problem already apparent if (2′) is the alleged analysis (paraphrase) of (SC), for it is no longer clear what rule of inference is going to move us from the paraphrases of (GC) and (1) to (2′).

This last problem is a very general one. As far as I have been able to discover, no pretense theorist has been able to give an account of the inference (described in Section 1) from:

The ancient Greeks worshipped Zeus.

Zeus is a mythical character.
Fictional characters don't exist.

to:

The ancient Greeks worshipped something that doesn't exist.

This inference, and numerous others like it, are not part of any pretense. These are facts about our pretheoretic notion of logical consequence, and as such, should be preserved on a proper logical representation of the data. A pretense-theorist has to show that the pretense-theoretic paraphrases of the premises imply the pretense-theoretic paraphrase of the conclusion. This hasn't been done. By contrast, an analysis is available in object theory.[18]

Let us return to and complete our discussion of comparatives by considering how object theory conceives and analyzes the comparatives data. (A) is accepted as a general analysis of comparatives, yielding (AC) and (AF) when the variable G is instantiated to *cleverness* and *fame*. The variables x, y in (AC) and (AF) are regarded as objectual, and range over the objects Pinkerton and Holmes$_{\mathrm{CD}}$. When these variables are instantiated in a straightforward manner, the right-side of the resulting biconditional is (RS$_c$), which we repeat here for convenience:

(RS$_c$) There is a degree d_1 of cleverness and a degree d_2 of cleverness such that: (1) Pinkerton is clever to degree d_1, (2) Holmes$_{\mathrm{CD}}$ is clever to degree d_2, and (3) $d_1 \geq d_2$.

Notice, however, that the auxiliary hypothesis of object theory (mentioned in the penultimate paragraph of §4) now predicts that the second clause in (RS$_c$) is ambiguous between the philosophical claim that Holmes$_{\mathrm{CD}}$ exemplifies being clever to degree d_2 and the philosophical claim that Holmes$_{\mathrm{CD}}$ encodes being clever to degree d_2. If we let 'C_{d_2}' be the predicate representing the property of being clever to degree d_2, we have the following two readings of the second clause of (RS$_c$), the first of which is an exemplification predication and the second of which is an encoding predication:

$$C_{d_2} h_{\mathrm{CD}}$$

$$h_{\mathrm{CD}} C_{d_2}$$

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[18]See Zalta [1988], p. 128.

In this case, the correct reading is the encoding predication, for the exemplification predication is false. Abstract objects do not exemplify the property of being clever (to any degree). So the proper analysis of (SC) in object theory is:

(B) There is a degree d_1 of cleverness and a degree d_2 of cleverness such that: (1) Pinkerton exemplifies being clever to degree d_1, (2) Holmes$_{\mathrm{CD}}$ encodes being clever to degree d_2, and (3) $d_1 \geq d_2$.

This, I suggest, is the proper understanding of (SC). Note also that it is a theorem of object theory that Holmes$_{\mathrm{CD}}$ encodes the property of being clever to degree d_2 if and only if according to the Conan Doyle novels, Holmes exemplifies being clever to degree d_2:[19]

$$h_{\mathrm{CD}} C_{d_2} \equiv \mathrm{CD} \models C_{d_2} h$$

This is a consequence of the fact that Holmes$_{\mathrm{CD}}$ encodes all and only those properties that Holmes exemplifies according to the Conan Doyle novels. So the second clause of our analysis of (SC) is equivalent to the claim:

According to the Conan Doyle novels, Holmes exemplifies being clever to degree d_2.

Substituting this into our analysis (B) of (SC), we get the following claim, which is equivalent:

(B′) There is a degree d_1 of cleverness and a degree d_2 of cleverness such that: (1) Pinkerton exemplifies being clever to degree d_1, (2) according to the Conan Doyle novels, Holmes exemplifies being clever to degree d_2, and (3) $d_1 \geq d_2$.

Both (B) and (B′) can be rendered into our formal notation in the way demonstrated above. Note that from (B′), we can predict Crimmins' analysis (2′) if one accepts the controversial idea that the second clause in (B′) can be rendered "In the Conan Doyle novels there is portrayed there being a person named 'Holmes' who is clever to degree d_2".

Our representation and analysis of (SC) avoids the two puzzles connected with the proper representation of our data. With respect to the first problem, it makes the right prediction in the case of (SF). To analyse (SF), we follow the same steps we followed in analyzing (SC). These steps allow us to move from (AF) to (RS$_f$):

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[19]Remember that we drop the subscript on 'Holmes' in those (formal) contexts that are relativized to the Conan Doyle novels.

(RS_f) There is a degree d_1 of fame and a degree d_2 of fame such that: (1) Pinkerton is famous to degree d_1, (2) $\text{Holmes}_{\text{CD}}$ is famous to degree d_2, and (3) $d_1 \geq d_2$.

Again our theory predicts an ambiguity in the second clause of (RS_f) between Holmes exemplifies being famous to degree d_2 and Holmes encoding being famous to degree d_2. However this time, the correct analysis is the exemplification reading:

$F_{d_2} h_{\text{CD}}$

With this as our reading of the second clause of (RS_f), we obtain the following analysis of (SF):

There is a degree d_1 of fame and a degree d_2 of fame such that: (1) Pinkerton exemplifies being famous to degree d_1, (2) $\text{Holmes}_{\text{CD}}$ exemplifies being famous to degree d_2, and (3) $d_1 \geq d_2$.

So our theory solves the first puzzle involving comparatives. A simple ambiguity in the copula infects our everyday, ordinary understanding of comparatives, insofar as they are applied to fictions. Once the ambiguity is resolved, the proper analyses can be given.

Before we discuss the second problem, the ambiguity must be removed from our notation for the comparative relation $As\text{-}G\text{-}As(x, y)$. English sentences of the form 'x is as G as y' can be disambiguated in one of three ways. If one of the relata is a fiction and it is the degree of G that that relatum has *in the fiction* that is in question, we disambiguate our formal notation by marking the variable with a '+'. This will serve to indicate that the encoding reading for that relatum is in play. So, in what follows, we shall distinguish the following four biconditionals:

$As\text{-}G\text{-}As(x, y) \equiv \exists d_1 \exists d_2 [G_{d_1} x \ \& \ G_{d_2} y \ \& \ d_1 \geq d_2]$

$As\text{-}G\text{-}As(x, y^+) \equiv \exists d_1 \exists d_2 [G_{d_1} x \ \& \ y G_{d_2} \ \& \ d_1 \geq d_2]$

$As\text{-}G\text{-}As(x^+, y) \equiv \exists d_1 \exists d_2 [x G_{d_1} \ \& \ G_{d_2} y \ \& \ d_1 \geq d_2]$

$As\text{-}G\text{-}As(x^+, y^+) \equiv \exists d_1 \exists d_2 [x G_{d_1} \ \& \ y G_{d_2} \ \& \ d_1 \geq d_2]$

Thus, for example, the last of these would be appropriate for the analysis of the English sentence "Holmes is as clever as Poirot", since this compares Holmes' cleverness within the Conan Doyle novels with Poirot's cleverness within the Agatha Christie ('AC') novels. So the formal representation:

$As\text{-}C\text{-}As(\text{Holmes}^+_{\text{CD}}, \text{Poirot}^+_{\text{AC}})$

is equivalent to:

$\exists d_1 \exists d_2 [h_{\text{CD}} C_{d_1} \ \& \ p_{\text{AC}} C_{d_2} \ \& \ d_1 \geq d_2]$

This asserts that there are degrees d_1 and d_2 such that: (1) $\text{Holmes}_{\text{CD}}$ encodes being clever to degree d_1, (2) $\text{Poirot}_{\text{AC}}$ encodes being clever to degree d_2, and (3) d_1 is greater than or equal to d_2. Given the equivalences in object theory discussed at the end of Section 4 and even more recently, we know that this representation of the English "Holmes is as clever as Poirot" is yet again equivalent to:

There are degrees d_1 and d_2 such that: (1) according to the Conan Doyle novels, Holmes exemplifies being clever to degree d_1, (2) according to the Agatha Christie novels, Poirot exemplifies being clever to degree d_2, and (3) d_1 is greater than or equal to d_2.

I take it this is the correct way to understand the English.

It is now easy to see that the second puzzle we have been tracking has been solved as well. Our representation and analysis of (SC) demonstrates that (SC) is a simple consequence of (GC) and (1), in which the inference is a simple application of universal instantiation and modus ponens. Our representations of (GC) and (1) are, respectively:

$\forall x [Fictional\text{-}D(x) \rightarrow As\text{-}C\text{-}As(p, x^+)]$

$Fictional\text{-}D(h_{\text{CD}})$

From these two claims, it follows that:

$As\text{-}C\text{-}As(p, h^+_{\text{CD}})$

The inference in question is the simple one that we know it to be. Note, however, that the corresponding representation of the inference from (GF) and (1) to (SF) does not use a '+-marked' variable x. From:

$\forall x [Fictional\text{-}D(x) \rightarrow As\text{-}F\text{-}As(p, x)]$, and

$Fictional\text{-}D(h_{\text{CD}})$,

it follows that:

$As\text{-}C\text{-}As(p, h_{\text{CD}})$

Again, the inference here is a simple case of universal instantiation and modus ponens.

One final point about these representations and analyses. Those well-versed in object theory will recognize that the +-marked *As-G-As* conditions do not automatically constitute relations. We must explicitly assert that these conditions constitute relations. I believe that we can consistently add such claims to object theory, but I will not pursue the consistency question here. If the resulting theory is consistent, then we can regard the new +-marked *As-G-As* notation not simply as defined notation but as notation which reveals the true logical form of the English. If not, then we are no worse off than the pretense theorists, since they do not regard comparative expressions as capable of asserting genuine relations between real individuals to fictions.

§6: Reconceptualizing Abstracta

It is time now to 'discharge' our talk of abstract objects. So far, we have seen that many of the notions of pretense theory correspond to regimented notions of object theory but that pretense theory has difficulty analyzing comparative (as well as intentional) relations between real objects and fictions. Presumably, a pretense theorist will not accept the object-theoretic analyses of these sentences that we proposed in the previous section. This seems to be the point at which the two theories are inconsistent with one another. An object theorist identifies fictions as abstract objects and accepts that names such as '*The Tin Drum*' and 'Raskolnikov' denote such objects. A pretense theorist rejects this.

In this section, I hope to show that a pretense theorist can accept our analyses of the data by showing that our quantification over abstract objects is harmless from the point of view of pretense theory. To make this point, my strategy will be to develop an interpretation of the formalism of object theory that should be acceptable to a pretense theorist, given that the interpretation quantifies only over entities that a pretense theorist already accepts. Since I think such an interpretation is simple to state, reasonably clear, and easily grasped, I plan to be brief.

Let me begin by inviting the reader to think about the formalism of object theory "from the bottom up". From a 'naturalized' point of view, how are we to understand a theory that simplifies the logical analysis of the data but at the cost of invoking high-level generalizations that assert the existence of abstract objects. I suggest that when looking at those high-level generalizations 'from below', they can be reconceived as quantifying over patterns of properties that are connected with behavioral patterns of various kinds. These include the patterns of pretense behavior involved in producing a prop and the subsequent dispositions to engage both in pretense behavior and in certain related patterns of speech and 'manners' of speaking. So, I suggest that we reinterpret the instances of the comprehension principle for abstract objects (which appear to assert the existence of stories and fictional characters) as asserting the existence of natural patterns of properties. The (kind of) property pattern that is asserted to exist depends on the nature of the condition used to define the pattern.

If this idea can be sustained, then we will have an interpretation of object theory that should be acceptable to a pretense theorist. Even a pretense theorist must accept that pretense behavior and speech within and about pretense falls into rather large-scale, general *patterns*. So I simply suggest that we make the implicit quantification over patterns in pretense theory explicit, and then interpret object theory in the resulting ontology.

Let us make this plan a little more precise. Here are two instances of the comprehension principle. The first appears to assert that there is an abstract object that encodes just the properties that Holmes exemplifies in the Conan Doyle novels and the second appears to assert that there is an abstract object which encodes just the properties that are constructed out of propositions true in the *The Tin Drum* ('TD'):

$$\exists x(A!x \,\&\, \forall F(xF \equiv \mathrm{CD} \models Fh))$$

$$\exists x(A!x \,\&\, \forall F(xF \equiv \exists p(\mathrm{TD} \models p \,\&\, F = [\lambda y\, p])))$$

To interpret these claims so that they are consistent with pretense theory, we simply need to offer an acceptable interpretation of the predicate '*A!*' and the formal claim '*xF*'. As to an acceptable interpretation of '*A!*', I suggest: *being a pattern of properties*. Under such an interpretation, these two formal claims assert the existence of patterns. As to an acceptable interpretation of '*xF*', I suggest: *F* is an element of the pattern *x*. Under this interpretation, our two formal claims simply tell us about the nature of the pattern.

Now to carry the idea one step further, let us ask what is it in the natural world that grounds these patterns of properties? The answer

is: human behavior (including speech behavior). Consider the first of our two formal claims. The source of this particular property pattern is the game of make-believe created by Conan Doyle, and institutionalized by his production of manuscripts (props) which, subsequent to copying and dissemination, served to identify (many of) the propositions whose imaginings are prescribed by the game. The resulting prescriptions and rules affect anyone who takes part in the game, creating thereby large-scale patterns of systematic behavior. The (contingent) production of the prop established a pattern of properties, and this pattern in turn grounds a subpattern of subsequent dispositions to utter sentences like 'Sherlock Holmes is F' in certain situations. Anyone who engages in the pretense (i.e., plays the game) accepts that the elements of the property pattern are constitutive of Holmes, even though they may disagree as to which properties are elements of the pattern. The property pattern that is established when the prop is produced becomes embodied again in the subsequent dispositions to assent to 'Holmes is F' in contexts where the pretense is accepted (e.g., in a literature class).

So the first of the above formal claims therefore asserts the existence of a certain property pattern, namely, one which is grounded in the production of a prop that regulates behavior such as our disposition to make and judge true such claims as "According to the Conan Doyle novels, Sherlock Holmes is F". The elements of this pattern are such properties as: being a detective, living in London, and being extremely clever. The instance of comprehension simply quantifies over this property pattern and objectifies it, so that it can be the subject of discourse. As such, the pattern may *exemplify* properties. For example, when we say "Holmes still inspires modern criminologists", we may take this to be a property that the pattern exemplifies. As a pre-theoretic, untutored claim of ordinary language, the sentence "Holmes doesn't exist" can be read as saying that nothing exemplifies all the elements of the Holmes pattern (this, of course, is consistent with saying that the pattern Holmes does exist). To say "Holmes might exist" is to say that something could exemplify all of the properties that Holmes encodes.[20]

Now consider the second of our two formal claims. The source of this particular pattern of properties is the game of make-believe created by Günther Grass and institutionalized by his production of a manuscript (prop) which, subsequent to copying and dissemination, served to identify (many of) the propositions whose imaginings are prescribed by the game. The resulting prescriptions and rules affect anyone who takes part in the game, creating thereby large-scale patterns of behavior, including the disposition to utter the token '*The Tin Drum*' in various well-regulated ways in certain situations. The second of the above formal claims asserts the existence of a pattern of properties grounded in the production of the prop which regulates this behavior. This pattern of properties involves (encodes) those properties of the form *being such that p*. Our disposition to make and judge as true claims of the form 'According to *The Tin Drum*, p' traces back to the production of the prop. So the second formal claim simply asserts the existence of a pattern of properties which is defined by those properties F of the form *being such that p* which are constructed out of propositions fictional in *The Tin Drum*.

The individual elements of the pattern are clear enough. They include properties such as: being such that Oskar Mazerath decided to stop growing at the age of 3, being such that on Oskar's first day of school when (his teacher) Miss Spollenhauer damaged his drum, he let loose a piercing shriek which literally pulverized both lenses of her spectacles, and being such that Oskar felt responsible for dispatching his mother, Jan Bronski, his uncle, and his father (i.e., most of his loved ones) to their graves. (Note that these propositional properties have fictions such as Oskar Mazareth and Miss Spollenhauer as constituents. Since we have just

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[20]Actually, there is a fruitful area for further investigation here. There is an argument which suggests that Holmes couldn't exist, given this definition. For one of the properties that Holmes encodes is being a friend of Watson. However, if Watson is an abstract object or pattern, then since no ordinary object could possibly exemplify the property of being a friend of some pattern, Holmes couldn't exist in the sense defined. The fruitful area for further research is to develop the definitions under which we can

truly say that Holmes might have existed. One strategy is to Ramseyfy, as suggested in Currie [1990]. We suppose there is a finite sequence of formulas $\phi_1, \ldots, \phi_n$, which constitute the truths of the Conan Doyle novels. We then conjoin all of these sentences. We then existentially generalize (using a distinct variable) on each name n of a fictional character other than Holmes to produce a multiply quantified conjunction of formulas. We make sure that 'relevant entailment' is defined so that this 'Ramsey sentence' is relevantly entailed by the propositions true in the novels and so will itself be true in the novels. As such, Holmes will encode the property that is denoted by the λ-expression that is formed by dropping out all of the occurrences of 'Holmes' from the Ramsey sentence and replacing them with a single variable bound by the λ. Call the resulting property 'the individual concept of Holmes' (the truth of the Ramsey sentence in the novels should relevantly entail that Holmes exemplifies the individual concept of Holmes in the novels; so this is a property that Holmes encodes). The sense in which 'Holmes *might exist*' is true, then, is that there might be some ordinary object which exemplifies the individual concept of Holmes.

given an account of these fictions, we have no need to appeal to 'pretend-propositions'.[21] Ultimately, our disposition to judge these claims to be true in the novel is grounded in the production of the prop, and this latter, in turn, grounds the existence of the property pattern. The instance of comprehension simply quantifies over this property pattern and objectifies it, so that it can be the subject of discourse. As such, the pattern may *exemplify* properties. For example, it might exemplify a relation to the pattern we would identify with Heinrich Böll's novel *Group Portrait with Lady*. When we say that the former is a more widely-known post-war German novel than the latter, this can be construed as an exemplification claim relating two patterns.

So we have our interpretation of object theory that is consistent with pretense theory. The commitment to fictional objects, when they are conceived in this way, is a commitment that pretense theory already makes, for such objects are subpatterns among the behavioral patterns which constitute the phenomena being investigated and which are presupposed to exist.

§7: Observations About the Road Between

The fundamental claims of pretense theory, which involve such notions as 'make-believe', 'game', 'imagination', 'prop', etc., (which we temporarily put aside in the penultimate paragraph of Section 3) should now be consistent with object theory, under our new interpretation. One such claim is that when someone authors a work of fiction, they produce a prop which mandates imaginings in a game of make-believe. There is no conflict between this seminal idea and the conceptual framework of object theory. Indeed, given our new understanding of this framework, the existence of the stories and characters becomes a contingent matter which is ontologically dependent on the behavior of authors. Stories and characters, as patterns, *supervene* on the author's storytelling, prop-producing, and game-institutionalizing behavior. We can produce instances of the

comprehension principle (i.e., apply the framework to produce specific existence claims) only when there is genuine data to be explained, i.e., only when authors do in fact behave in certain ways.

Since we now have an interpretation of our formalism on which the comprehension principle quantifies over contingently existing patterns, we can truly say that the Conan Doyle stories and the character of Sherlock Holmes *didn't exist* before Conan Doyle engaged in certain behavior. The contingency of the stories and characters can be traced to the contingent production of the prop. This puts to rest a traditional objection to the identification of fictions as abstract objects. It has been claimed that the identification of fictions with abstract objects does not account for the sense in which fictions are 'contingently created'.[22] This has led Thomasson, for example, to develop a theory of 'dependent abstracta'.[23] Of course, if we take only the Platonic interpretation of our comprehension principle, where abstract objects are conceived to be timeless and eternal objects which exist necessarily and always, then this objection to object theory has some *prima facie* force.[24] But under our new interpretation, we may focus on the fact that the comprehension principle can be invoked to assert the existence of patterns only when we have data of the form 'According to story s, x is F'. The existence of this data is a matter that depends contingently on prop-producing (make-believe and game-playing) behavior of a certain kind and so is the existence of the property patterns discussed in the previous section. (The proposed definition of the authorship relation requires that authors produce props if the authorship relation is to hold.) Thus we have an understanding of fictions that accounts for the intuition that they are contingent entities.

This sense of contingency for fictions (i.e., patterns) doesn't imply that they are anything like concrete objects. There is still a categorial difference between fictions and ordinary, concrete objects. Patterns of

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[21]Contrast this with Evans and others, who suggest, roughly, that we are to imagine that there is a proposition, expressed with the words "Oskar Mazerath decided to stop growing at age 3", and that this proposition is true. (See Evans [1982], pp. 354ff.) Our solution requires no such maneuver, since we can account for the denotation of 'Oskar Mazerath' in a way that should satisfy both pretense theorists and those who share Evan's intuitions about this case. I am indebeted to Fred Kroon for noting this point.

[22]For a nice discussion of this problem, see Deutsch [1991].

[23]See Thomasson [1998].

[24]It is important to note, however, that even under the Platonic interpretation of the theory, there is a response that can be made to this objection. For even if we construe abstract objects as existing necessarily and always, we can still say that the fact that an abstract object is a story is a *contingent* fact, for example. For the abstract objects that satisfy our definition of 'x is a *story*', do so contingently! And if it is a contingent fact that certain abstract objects are stories, it is a contingent fact that certain other abstract objects are characters in those stories.

Of course, under the new interpretation of object theory described in this paper, this defense of object theory is unnecessary.

properties and the behavioral patterns they supervene on are not concrete or spatiotemporal in the same way that ordinary objects and individual instances of behavior are concrete or spatiotemporal. A pattern of properties or behavior is fundamentally different in kind from the individual instances of behavior. Indeed, our new interpretation of object theory offers us a new, almost *deflationary* conception of 'abstract objects', on which the 'mind-independence' and 'objectivity' of such objects is to be contrasted with that of ordinary objects. But this is a matter for a different paper.

Since pretense theorists already accept behavioral patterns and the property patterns that supervene on them into their ontology, they need no longer refuse to treat names such as 'Holmes' and 'Zeus' as denotational. They can now accept the straightforward analysis of certain data without invoking awkward paraphrases. Intentional relations such as x fears y, x worshipped y, x searched for y, etc., can be accepted as such. There is no need for them to try to defend the idea that such things as 'pretend-fear', 'pretend-worship', or 'pretend-searches' account for the data in question. Ponce de Leon was not pretend-searching for the fountain of youth. We do not pretend fear when we wake up screaming in the middle of the night, having dreamed about a monster. Indeed, we have now a sense in which the dream object 'is' a monster. Such a sense is all that is needed to explain why fear can be appropriately directed towards such an object!

Nor do we have to invoke the notion of 'pretend-reference' to account for this data.[25] The notion of 'pretend-reference' is certainly worthwhile if we want to describe the author's use of names *during* a storytelling. A storytelling (prop-production) could be understood as an extended 'naming baptism', for once the storytelling is complete, a property pattern will have been defined.[26] The pretense theorist should be able to accept that real reference to patterns can subsequently take place. The present interpretation of our formal theory requires nothing more than that. The notion of reference can be analyzed causally in the way Kripke [1972] and

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[25]See Walton [1990], pp. 391ff, and pp. 422-425, where an appeal to pretend-reference is made. However, see Kroon [2000], for an excellent, and more subtle, discussion of how pretend-reference might be used to understand negative existentials from a pretense theoretic point of view. Also, there is unpublished work by Kripke in which 'pretend-reference' plays a role.

[26]This suggestion was developed in my short article 'Referring to Fictional Characters: A Reply', which was translated into German and published as Zalta [1987].

others suggest as long as we amend the causal theory slightly in the case of names of fiction. Recall that in the case of names of ordinary objects, the causal chain of uses of a name with an intention to refer traces back to an initial 'baptism' in which the named object is ostended. However, in the case of names of fictions, the causal chain of uses of a name with the intention to refer trace back to a property pattern grounded in a storytelling, i.e., a property pattern grounded in the production of prop that mandates imaginings in a game of make-believe. Unfortunately, a full discussion of this issue has to be reserved for a different occasion.

Under the interpretation of object theory we have just proposed, property patterns grounded in behavioral patterns constitute the meaning (semantic significance) of names like 'Holmes', 'Zeus', etc. It seems clear that the new interpretation of object theory proposed here reflects a kind of Wittgensteinian approach to meaning. It is intriguing that a Wittgensteinian approach to meaning provides an interpretation of our formal metaphysical theory and of the analyses constructed in terms of that theory. While the Wittgensteinian approach to meaning offers a naturalized interpretation of the formal metaphysical theory, the formal theory in return makes the Wittgensteinian approach to meaning more precise. Since pretense theory has been developed in the spirit of a Wittgensteinian theory of (language) games, the road from pretense theory to object theory is therefore a short one and more easily navigated than one might have expected.

Appendix:
A Sketch of Object Theory for the Uninitiated

Readers unfamiliar with object theory may find it useful to know that the theory distinguishes between abstract objects and ordinary objects. We say that an object x is ordinary ('$O!x$') just in case x might have been concrete (i.e., just in case $\diamond E!x$). When x and y are ordinary objects, then $x = y$ just in case necessarily, x and y exemplify the same properties (i.e., just in case $\Box \forall F(Fx \equiv Fy)$). In the language of object theory, we use 'Fx' to represent the fact that object x exemplifies property F and '$F^n x_1 \ldots x_n$' to represent the fact that objects $x_1, \ldots, x_n$ exemplify the relation F^n.

An object x is *abstract* ('$A!x$'), by contrast, just in case x isn't the kind of thing that could be spatiotemporal (i.e., iff $\neg\diamond E!x$). Abstract objects

both *encode* properties as well as exemplify properties. (It is an axiom that ordinary objects don't encode properties.) From the point of view of object theory, Sherlock Holmes is an abstract object that encodes being a detective, being clever, living at 221B Baker Street in London, etc. That is, it encodes all and only the properties attributed to Sherlock Holmes in the Conan Doyle novels. However, Holmes exemplifies being more famous than any real detective, being thought about by Conan Doyle, being admired by, and an inspiration to, modern criminologists, etc.

As a second example, object theory identifies the fountain of youth as an abstract object that encodes being a fountain, producing waters which confer everlasting life when consumed, being located somewhere in Florida, etc. The fountain of youth exemplifies, however, such that Ponce de Leon searched for it, being mythical (assuming there is such a property), etc. Similarly, object theory identifies the monster I dreamed about last night as an abstract object that encodes being a monster, having three heads, having breathed fire, etc. The monster I dreamed about last night, however, exemplifies being a dream object, being frightening, being such that I hope that I never dream about it again; etc.

In the language of object theory, we use 'xF' to represent the fact that (abstract) object x encodes property F. We say that abstract objects x and y are identical if and only they necessarily encode the same properties. In formal terms, this would be written:

$$A!x \ \& \ A!y \rightarrow [x=y \equiv \Box\forall F(xF \equiv yF)]$$

The ordinary sentences of natural language having the form 'x is F' are ambiguous between Fx and xF. So 'Holmes is a detective' receives two readings when analyzed in the language of object theory. When analyzed as 'Holmes encodes detectivehood' it is true; when analyzed as 'Holmes exemplifies detectivehood', it is false. So the present theory can explain why the monster I dreamed about last night frightened me. There is a sense of 'is' on which the monster I dreamed about *is* a monster.

Object theory is applied to the theory of fiction with the help of two interesting features, namely, its underlying theory of properties and theory of propositions. The main principle of the underlying property theory is that for every condition on objects expressible without encoding subformulas, there is property that is exemplified by exactly those objects satisfying the condition.[27] We may denote such complex properties using

λ-notation. The expression $[\lambda x \ \phi]$ (where ϕ has no encoding subformulas) denotes the property *being an x such that ϕ* and the principal axiom governing this expression is that an object y exemplifies $[\lambda x \ \phi]$ iff y satisfies ϕ.[28] We say that properties F and G are identical just in case, necessarily, they are encoded by the same objects (i.e., $F=G \equiv \Box\forall x(xF \equiv xG)$). Though the theory of (existence and identity conditions for) properties can be generalized to that of relations, we omit the discussion of the more general theory from this brief introduction.

If we take propositions to be 0-place properties, then the main principle of the underlying theory of propositions is a special case of the principle for properties. The main principle of the theory of propositions is that for every condition expressible without encoding subformulas, there is a proposition that is true iff that condition holds. Basically, any formula ϕ in the language of object theory which doesn't involve encoding subformulas can be used in a term of the form '*that-ϕ*' ('$[\lambda \ \phi]$'). The principal axiom governing this term is a simple one: *that-ϕ* is true iff ϕ. This is the 'degenerate' case of λ-Conversion; from it, one can prove the existence of

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[27]In formal terms, this principle asserts:

$\exists F\forall x(Fx \equiv \phi)$, where ϕ has no free Fs and no encoding subformulas

This, of course, has numerous instances, among which are the following:

$\exists F\forall x(Fx \equiv \neg Gx)$
$\exists F\forall x(Fx \equiv Gx \ \& \ Hx)$
$\exists F\forall x(Fx \equiv Gx \ \lor \ Hx)$
$\exists F\forall x(Fx \equiv \exists y Ryx)$
etc.

When we add more expressive power to the language of object theory, we get a wider variety of properties. See Zalta [1988] (which adds tense operators) and [1993].

[28]In formal terms:

$\forall y([\lambda x \ \phi]y \equiv \phi_x^y)$

This axiom, in fact, implies the main principle of the underlying property theory.

a wide variety of propositions.[29]

Now the principles governing the existence of properties and propositions interact with each other. Every proposition p corresponds with a propositional property of the form *being such that* p. The following claim is a consequence of our formal theory:

$$\forall p \exists F \forall x (Fx \equiv p)$$

In other words, for every proposition p, there is a property that objects exemplify iff p is true. In what follows, we refer to these propositional properties using λ-notation as $[\lambda x\, p]$. We read this term as follows: being such that p. Of course, such terms obey the axiom discussed previously: an arbitrary object y exemplifies $[\lambda x\, p]$ iff p.[30] These propositional properties allow us to state identity conditions for propositions: p and q are identical if and only the property of being such that p is identical to the property of being such that q (where identity for properties has already been defined). In formal terms, we would write: $p = q \equiv [\lambda y\, p] = [\lambda y\, q]$.

Given that our theory of properties and propositions asserts the existence of propositional properties of the form *being such that* p, the theory of abstract objects then asserts that there are abstract objects that encode such properties. In what follows, we can extend the notion of encoding so that we may talk of abstract objects encoding *propositions*. We shall

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[29]By existentially generalizing on $[\lambda y\, \phi]$, we can derive the main principle of the theory of propositions (mentioned just previously in the text) from this axiom:

   $\exists p (p \equiv \phi)$, where ϕ has no free ps and no encoding subformulas

As a result, we have the following instances of this theorem schema:

   $\exists p (p \equiv \neg q)$
   $\exists p (p \equiv q \,\&\, r)$
   $\exists p (p \equiv q \,\vee\, r)$
   $\exists p (p \equiv \exists x Mx)$
   $\exists p (p \equiv \forall x (Gx \rightarrow Fx))$
   etc.

As we add expressive power to the language of object theory, we get a wider variety of propositions. Already, however, the language has enough expressive power to represent a wide spectrum of our ordinary talk about fictions. See Zalta [1988] and [1993].

[30]In formal terms:

   $\forall y ([\lambda x\, p]y \equiv p)$

This is an instance of the axiom:

   $\forall y ([\lambda x\, \phi]y \equiv \phi_x^y)$,

which we discussed above.

say that an abstract object encodes p ('$\Sigma_x p$') whenever x encodes the property *being such that* p. In formal terms:

$$\Sigma_x p \;=_{df}\; x[\lambda y\, p]$$

Note that it now follows that there is a distinguished subdomain of abstract objects which encode *only* propositional properties. They are called *situations*:

$$Situation(x) =_{df} A!x \,\&\, \forall F(xF \rightarrow \exists p(F = [\lambda y\, p]))$$

When s is a situation, we may then define 'p is true in s' ('$s \models p$') as s encodes p:

$$s \models p =_{df} \Sigma_x p$$

With this notion, we are just a step away from defining the notion of a story. Before we turn to this latter notion, it is important to note that it now follows in object theory that if the same propositions are true in situations s and s', then $s = s'$; i.e., $\forall p(s \models p \equiv s' \models p) \rightarrow s = s'$.

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