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MODAL MONSTERS AND TALK ABOUT FICTION

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ABSTRACT. This paper argues in favor of a treatment of discourse about fiction in terms of operators on character, that is, Kaplanesque ‘monsters’. The first three sections criticize the traditional analysis of ‘according to the fiction’ as an intensional operator, and the approach to fictional discourse grounded on the notion of contextual shifts. The final sections explain how an analysis in terms of monsters yields the correct readings for a variety of examples involving modal and temporal indexicals.

KEY WORDS: fictional narrative, historical remarks, semantic analysis

1. INTRODUCTION

According to Michael Bay’s romantic epic *Pearl Harbor*, the Doolittle raid took off in tranquil waters and overcast weather. As we strive to recall the course of events narrated in the movie, I say

(1) the Doolittle raid took off in calm seas.

My utterance, hereinafter *Fict*, is intuitively true: in the fiction, things did indeed go as I said. Consider however my utterance *Fact* of (1) during a debate on military history. This time, I seem to have got things wrong: the raid did in fact take off in rough weather. In the absence of convincing arguments to the effect that our intuitions about *Fict* and *Fact* should not be taken seriously, an empirically suitable semantic analysis of these examples ought to provide a systematic account of why the former is true, and the latter is false.¹

This essay discusses the shape such an analysis ought to take. Its main thesis is that the traditional treatment of cases such as *Fict* is incorrect, and that an appropriate analysis ought to appeal to the semantic resources provided by modal (and temporal) operators on character, that is, in the current jargon, modal (and temporal) *monsters*.² After a brief introduction to the semantic framework relevant for this essay in section 2, I present and criticize the Traditional Approach to the problem of utterances about fiction in section 3. In section 4 I discuss and reject a reply to my criticism, grounded on certain views about the interaction between

intensional operators and expressions such as ‘actually’. Section 5 pauses on a *prima facie* plausible but ultimately unsatisfactory alternative to the Traditional Approach, the Context-Shift View. Section 6 presents what I take to be the correct treatment of *Fict* and of the other examples I consider. In this view, my utterance of (1) as a summary of the events in *Pearl Harbor* is represented by means of a sentential operator which affects the context of evaluation for the sentence upon which it operates, that is, it is represented by means of a (modal) monster.

As their unflattering nomiker indicates, monsters have not been well received within mainstream philosophical semantics. In particular, although *epistemic* monsters have occasionally been approached with a tolerant attitude, modal and temporal monsters have traditionally been excluded from the semantic analysis of natural languages on the basis of *a-priori* considerations.³ If my arguments in favor of a monster-based treatment of *Fict* and similar examples are on the right track, and if modal monsters do indeed play a role in the study of natural languages, the general premises in the traditional anti-monstrous arguments may indeed be in need of closer critical assessment. Far from being of merely ‘technical’ interest, the study of modal monsters may then help unveil fundamental and possibly erroneous assumptions in the dominant approach to indexical languages such as English.

2. PRELIMINARIES

What is at issue in this essay is the correct semantic analysis of the discrepancy between cases such as *Fact* and *Fict*, that is, between utterances of (1) intended respectively as historical remarks and as comments on the course of events described in a fictional narrative. A central role in the semantic analysis of an utterance is played by a *compositional system*, in which appropriate semantic values are assigned to complex expressions on the basis of the semantic behavior of simpler expressions. Still, compositional systems (or at least compositional systems of the customary type) are not equipped for taking utterances as inputs: their objects of analysis are rather abstract items, intended to provide the relevant information about the utterances under analysis in a tractable format. For the present purpose, as I explain in the next paragraphs, the semantic *representation* of an utterance may be understood in terms of what I call a *clause-context* pair. The views about *Fact* and *Fict* I discuss in what follows consist of alternative hypotheses on the clause-context pairs appropriate for these utterances, and on the shape of a compositional system equipped for their semantic analysis.

Since the semantic profile of an utterance depends among other things on the expressions involved in it, it seems obvious that the representation of an utterance ought to contain a syntactic construct (hereinafter, in a deliberately neutral jargon, a *clause*) of some sort. A variety of independent considerations support the conclusion that the clauses appropriate for the semantic analysis of even limited fragments of English must be considerably complex affairs. Still, most of the complexity in question is of no immediate relevance for the topic of this essay. In what follows I thus trade syntactic rigor for pedagogical and typographical simplicity, and I proceed by presenting clauses by means of the familiar cocktails of English words and expressions from the language of first order modal logic (variables, parentheses, operators, etc.).

Some expressions, so-called *indexicals* such as ‘now’ or ‘here’, display a semantic behavior peculiarly sensitive to the choice of appropriate parameters. The collection of the parameters required by the meaning of the indexicals occurring in the fragment under study is customarily called a *context*.⁴ So, compositional systems equipped for the treatment of indexicals may not take lone clauses as their inputs, but rather pairs $\langle s, c \rangle$ consisting of a clause s and a context c . Since the only indexicals of interest for the considerations in what follows are the temporal and modal indexical operators ‘now’ and ‘actually’, a context c shall hereinafter be understood simply as a pair $\langle c_T, c_W \rangle$ consisting respectively of a contextual time and possible world.

The general layout for the type of compositional systems relevant for my purpose is that familiar from the literature on double index semantics (see for instance Kaplan 1977). In particular, the evaluation of indexical expressions requires relativization of semantic value to a context, and the treatment of intensional operators introduces further relativization to a so-called *point of evaluation*, hereinafter simply a time and a possible world. So, an expression e is assigned a semantic value $[[e]]_{f,c,t,w}$ with respect to an assignment f of values to variables, a context c , and a point of evaluation $\langle t, w \rangle$. For typographical and pedagogical convenience, in what follows I occasionally ignore some of these parameters whenever their role is not immediately relevant—for instance, in the absence of quantifiers or temporal operators, I silently disregard f and t and focus on $[[e]]_{c,w}$. Given a sentence s , $\mathbf{True}_c(s)$ iff for all f , $[[s]]_{f,c,t',w'} = \mathbf{T}$, where $t' = c_T$ and $w' = c_W$. Given an utterance v , and taking for granted a representation of v as $\langle s, c \rangle$, v is evaluated as true iff $\mathbf{True}_c(s)$.⁵

Since compositional systems are understood as *functions* from their input to appropriate semantic outcomes, different representations ought to be considered by any intuitively adequate treatment of *Fict*, my

utterance of (1) as a comment on the movie, and of *Fact*, my utterance of (1) as an historical remark.. Although the views I consider in this essay defend alternative hypotheses about the correct representations for *Fict*, all of them agree that, at least with respect to the problem at hand, customary compositional systems may obtain the desired result for *Fact* by relying on a relatively straightforward representational choice—at least for our purposes, one including as its clause something along the lines of (ignoring tense)

(1a) take off in calm seas (the Doolittle Raid),

together with the obvious context, namely the context u including the time and possible world at which *Fact* takes place. Given the actual meteorological situation on the date of the raid, even the most basic compositional system easily yields the verdict **False_u**(1), and *Fact* is assigned the intuitively desired truth-value.

It is uncontentious that *Fict*, my utterance of (1) as a comment on the movie, may end up with a truth-value different from that for *Fact* only if it is represented by means of a clause-context pair different from that consisting of (1a) and u . What is by no means uncontentious is the exact nature of this pair, and the structure and make-up of a compositional system able to evaluate it as true. But before I proceed to the presentation of different views on these issues, a few brief comments are in order with respect to the very general idea that two utterances of, say, ‘the Doolittle raid took off in calm seas’ may end up with distinct representations. What exactly (or even only approximately) makes it the case that *Fact* is representable by $\langle(1a), u\rangle$, but *Fict* is not? Are the speaker’s intentions relevant in this respect, or may they be overridden by ‘external’ considerations, having to do with, say, the expectations of her audience, the content of the surrounding discourse, or other factors? These are difficult and independently interesting questions, but they need not be answered here. On the one hand, the problems they raise are not peculiar to discourse about fiction and to examples such as *Fict*: instances of structural ambiguity, lexical ambiguity, or ellipsis, to cite only a few obvious phenomena, provide cases in which the representation for an utterance may be selected by appealing to one or another among the factors cited above. On the other hand, the diatribe between the views I assess in what follows remains indifferent to decisions in this respect: none of their advantages or shortcomings would have to be reassessed on the basis of the choice of a particular explanation of the cause for the difference between, say, *Fact* and *Fict*. For these reasons, in what follows I remain deliberately neutral with respect to the exact

source of the semantic discrepancy at issue, and I rest satisfied with occasional casual hints to the different *settings* in which they take place, such as the remark that *Fict* takes place as I exit the movie theatre, or that *Fact* is intended as a historical commentary.⁶

To summarize. The intuitive difference in truth-value for *Fact* and *Fict* entails that empirically adequate compositional systems be supplied with distinct representations for them, that is, with pairs that differ from each other with respect to their clauses and/or contexts. The proposals discussed in what follows provide different choices of the representations for *Fict*, and alternative suggestions pertaining to the content of a compositional system able to evaluate it as true. In the next section, I begin with the presentation of what I call the Traditional Approach to *Fict*.

3. THE TRADITIONAL APPROACH

According to the Traditional Approach, the representations for *Fict* and *Fact* differ with respect to their clauses: although both representations include the obvious context u (that which provides the time and world of utterance), the representation for *Fict* incorporates a clause containing an occurrence of a suitable operator, as a first approximation informally readable as ‘according to *Pearl Harbor*’. In order to facilitate the discussion of some examples later on, I officially present the expression in question as a two-place operator FT , followed by an expression denoting the relevant fictional narrative, and by a formula. So, in this format, the clause suggested by the Traditional Approach as part of the representation for *Fict* amounts to

(1b) FT (*Pearl Harbor*, take off in calm seas(the Doolittle raid)).

For simplicity’s sake, since most of the examples from this and the following sections deal with the case of *Pearl Harbor*, I often leave the first argument for FT unexpressed, and write merely

FT (take off in calm seas(the Doolittle raid)).

It is the central thesis of the Traditional Approach that the compositional system ought to treat the newly introduced operator as an *intensional* operator. Intensional (sentential) operators affect the behavior of the sentences on which they operate by ‘shifting’ the point with respect to which they are evaluated. Informally speaking, FT is supposed to focus the evaluation of the formula within its scope to a particular possible world, roughly ‘the world determined by’ the fiction denoted by

its first argument. More precisely (and ignoring for simplicity's sake assignments of values to variables and temporal considerations),

$$[[FT(\alpha, \varphi)]]_{c,w} = T \text{ iff } [[\varphi]]_{c,w^*} = T,$$

where w^* is the world determined by $[[\alpha]]_{c,w}$

Modulo some considerations to be addressed shortly, this proposal apparently leads to the correct assignment of truth to *Fict*. Given a representation of *Fict* in terms of the clause-context pair consisting of (1b) and the context of utterance u , *Fict* turns out true iff **True_u**(1b), that is iff 'the Doolittle Raid took off in calm seas' is evaluated as T with respect to the possible world w^* determined by *Pearl Harbor*. Since *Pearl Harbor* portrays the Doolittle raid as taking off in relatively good weather, the intuitively desired result is easily obtainable.⁷

My presentation of the Traditional Approach thus far is incomplete and inaccurate for at least one important, but for my purpose not immediately relevant reason. The foregoing intensional treatment of *FT* appeals to the notion of 'the possible world determined by' a fictional account. The incompleteness of my summary stems from its silence with respect to this important and by no means obvious notion. Sheer consideration of the course of events depicted in *Pearl Harbor*, to cite just one problem among many, may arguably not suffice for the identification of the relevant parameter—for instance, notwithstanding the movie's uncommittal attitude with respect to astronomical matters, it would presumably still be the case that in w^* , the possible world it intuitively determines, Jupiter is closer to the Sun than Saturn. The inaccuracy of my presentation of the Traditional Solution derives from the fact that, according to widespread consensus and on any reasonable account of 'being determined by', a fictional piece such as *Pearl Harbor* fails to determine exactly one possible world. For instance, since no sequence in *Pearl Harbor* allows the viewer to determine the number of victims of the Japanese attack who were born in the state of New Jersey, and since no reply to this question may arguably be 'imported' in the way appropriate for the aforementioned proposition about Jupiter, what the movie would seem to 'determine' is at best a class of possible worlds, each providing alternative plausible replies to the query on the victims' origins.⁸

These considerations may well raise independently interesting problems for the Traditional Approach. But the questions I intend to address in what follows are of a different sort, and focus on certain genuinely *semantic* aspects of the Traditional Approach. In particular, if my objections to the Traditional Approach are on the right track, they remain untouched by

amendments directed at correcting the naive notion that a fictional narrative determines a unique possible world. Conversely, any proposed correction in this respect may also be incorporated within the positive account I propose in section 5 as an alternative to the Traditional Approach. For these reasons, I continue to proceed under the pretense that ‘determination’ expresses a sufficiently clear relationship between fictions and possible worlds, and that a unique possible-world *relatum* may be identified, at least with respect to the examples I intend to discuss. The reader may rectify this (for my purpose harmlessly mistaken) pretence according to the guidelines he or she deems most appropriate.

Although the Traditional Approach manages to obtain the desired truth-value for *Fict*, it encounters important difficulties when indexical expressions are taken into consideration. An indexical of particular interest in this respect is the indexical modal operator ‘actually’, defined as follows:

$$[[\text{actually } \varphi]]_{c,w} = T \text{ iff } [[\varphi]]_{c,w'} = T, \text{ where } w' =_{c_w}.$$

Consider then the following cases. As we exit the theatre, I say

(2) even though the American commanders thought he was further away, admiral Yamamoto was actually within reach of American fighters.

Even on the assumption that what is at issue are the events depicted in *Pearl Harbor*, this example may be interpreted in (at least) two different ways. According to one interpretation, I may have produced an utterance with the aim of discussing the historically correct location of Yamamoto, a battleship in Japanese waters, and of falsely conveying that, according to the movie, it was reachable by American fighters. According to another reading, however, (2) may be employed so as to convey that, according to the movie, Yamamoto’s location was closer than what the Americans thought, and within the range of American fighters. Since according to the movie Yamamoto is aboard one of the carriers involved in the attack, my utterances is then arguably true. Similar considerations apply to utterances of, say, ‘Yamamoto could have been taller than he actually is’: in an appropriate setting, an utterance of this sentence apparently conveys the claim that, according to *Pearl Harbour*, the admiral’s height could have exceeded the size the movie attributes to him. The truth-value for this utterance thus depends on the movie’s account of the modal variability of Yamamoto’s stature with respect to his fictional height, rather than with respect to his historically accurate size.⁹

The desired evaluation of the utterance of (2) described above (and of the other example just mentioned) is however unavailable from the viewpoint of the Traditional Approach, at least if the indexical reading of ‘actually’ is taken for granted. For, according to the Traditional Approach, my utterance is in this case representable by means of a clause-context pair containing the context of utterance u , together with the following clause (focusing on the relevant fragment and with obvious abbreviations):

(2a) $FT(\text{actually}(\text{being within reach}(\text{Yamamoto})))$.

But $\text{True}_u(2a)$ iff $[[\text{actually}(\text{being within reach}(\text{Yamamoto}))]]_{u,w^*}=\text{T}$, where w^* is as usual the possible world determined by the fiction, and hence, according to the indexical reading for ‘actually’, iff $[[\text{being within reach}(\text{Yamamoto})]]_{u,w^*}=\text{T}$, where $w^*=u_W$, the possible world in which I am speaking. So, since Yamamoto was not in fact within reach of the American fighters, my utterance is incorrectly evaluated as false.

A line of rescue seems however immediately available to the Traditional Approach. As I explicitly recognized, the considerations presented above show that undesirable results may be derived not from the Traditional Approach alone, but from its conjunction with a certain hypothesis about the semantic behavior of ‘actually’, namely that it inevitably behaves indexically. Yet, it is sometimes suggested that ‘actually’ need not conform to this reading. According to David Lewis, for instance,

we can distinguish two senses of actual: a *primary* sense in which it refers to the world of utterance even in a context where another world is under consideration, and a *secondary* sense in which it shifts its reference in such a context. (Lewis, 1970: 22)

If ‘actual’ is interpreted according to Lewis’ secondary sense, the desired result seems easily obtainable. In particular, writing ‘actually_s’ for an expression interpreted according to Lewis’ secondary sense, the proposed representation for my utterance includes as usual the context of utterance u , together with the clause

(2b) $FT(\text{actually}_s(\text{being within reach}(\text{Yamamoto})))$.

In this case, the conclusion of truth is easily obtainable, since $\text{True}_u(2b)$ iff $[[\text{being within reach}(\text{Yamamoto})]]_{u,w^*}=\text{T}$, where w^* is the possible world determined by *Pearl Harbour*.

Still, this response to my objection against the Traditional Approach is not satisfactory for at least two reasons. The first has to do with occurrences of ‘actually’ in the clauses under analysis for which an indexical reading is independently forced. The second reason has to do

with parallel examples involving relatively uncontroversial indexical expressions such as ‘now’. I consider these issues in the next section.

4. MORE TROUBLE FOR THE TRADITIONAL APPROACH

Put the issue of fictional discourse momentarily aside, and consider a straightforward utterance of

(3) all Japanese planes could have survived the raid

aimed at describing the modal profile of the collection of Japanese planes: all of them, so I say, possibly survived the attack. That is: given all Japanese planes $p_1 \dots p_n$, there is at least one possible world in which $p_1 \dots p_n$ all survived the attack. None of the customary shufflings of the relative scopes for ‘all’ and ‘could’ seems appropriate within the representation for this utterance.¹⁰ So,

$$\text{Possibly } (\forall x)(\text{plane}(x) \rightarrow \text{survive}(x))$$

merely says that all the planes which the Japanese could have used could have survived, a claim that would remain true if at least some p_i among $p_1 \dots p_n$ was necessarily doomed. On the other hand, the clause

$$(\forall x)(\text{plane}(x) \rightarrow \text{Possibly survive}(x))$$

rules out the existence of such p_i , but allows that there be no single possible world where all of $p_1 \dots p_n$ collectively survive. The desired interpretation may however be obtained by appealing to the indexical modal operator ‘actually_i’, as in the clause

$$\text{Possibly } (\forall x)(\text{actually}_i \text{ plane}(x) \rightarrow \text{survive}(x)).$$

Of course, the occurrence of ‘actually_i’ in this sentence is not the result of a (possibly controversial) hypothesis about uses of the English expression ‘actually’, but an expression able to achieve the desired results precisely in virtue of its indexical character.

Let us then return to the discussion of *Pearl Harbor*, and let us consider my utterance of (3), intended as conveying the claim that the entire collection of planes which in the movie attack the American fleet is such that, according to what the movie allows as a possible state of affairs, it returns intact to its base. For the reasons given above, such a ‘collective possibility’ must be expressed with the help of ‘actually_i’, an operator which by assumption follows the indexical pattern highlighted in section 3.

When coupled with the Traditional Approach, however, the proposed strategy yields an incorrect result. Given the context of utterance u ,

(3a) FT (Possibly $(\forall x)$ (actually_i plane(x) \rightarrow survive(x)))

says that, according to *Pearl Harbor*, all of the planes which took part in the actual 1941 raid are such that, in the movie, they could survive the attack. This much does not yield the intuitively desired truth-conditions.

My second objection to the Traditional Approach's appeal to the secondary sense of 'actually' brings temporal rather than modal considerations to the foreground. Consider an expression such as 'in the future', that is, an expression which, in the traditional Kaplan-inspired approach, is analyzed as a temporal intensional operator: $[[\text{in the future } \varphi]]_{c,t}=1$ iff $[[\varphi]]_{c,t^*}=1$, where t^* is some time occurring after t . Take now an utterance of 'in the future Yamamoto will regret the attack' taking place while watching the depiction of the Japanese raid in *Pearl Harbor*. Since this utterance is not intuitively interpretable as asserting that Yamamoto's regret takes place after his death, that is, at some time after my utterance, the effects of the operator appropriate for the analysis of discourse about fiction ought to engender a temporal shift analogous to that appropriate for the modal dimension. According to an intensional treatment parallel to that proposed by the Traditional Approach, this amounts to an analysis of FT roughly along the following lines:

$$[[FT(\alpha, \varphi)]]_{c,t} = T \text{ iff } [[\varphi]]_{c,t^*} = T,$$

where t^* is the time determined by $[[\alpha]]_{c,t}$

Not unlike the notion of a possible world 'determined by' a fictional narrative, the idea of the time 'determined by' it is complex and in need of amendments and fine-tuning. Since none of the intricacies involved in the resulting analysis is of immediate relevance for the topic of this essay, I proceed by assuming a simple minded account, according to which the time in question may be understood as a time-span roughly including 1941. Given these assumptions, the Traditional Approach does in this case yield the desired evaluation, according to which truth is obtainable as long as Yamamoto's regret takes place some time after 1941 (according to the course of events depicted in the movie).

Notwithstanding its success with respect to the foregoing example, the Traditional Approach falters when it comes to instances involving expressions whose indexical reading is even less questionable than that

for the occurrences of ‘actually’ in the examples from section 3. Consider for instance my utterance of

(4) in the future Yamamoto will forget what is now going on in his mind occurring as the Pearl Harbor events unfold in the fictional narrative of *Pearl Harbor*. In the Traditional Approach, this utterance is represented by means of (some clause suitably related to) (4), together with the context of utterance u . Thus, given the hypothesis that $[[\text{now}]]_{c,w} = c_T$, it follows from the Traditional Approach that my utterance conveys the trivially false claim that, according to the fiction, sometimes after his involvement in the Pearl Harbor attack Yamamoto forgets what he is thinking about in 2006. This, of course, is not the desired reading.

What the discussion in sections 3 and 4 apparently indicates is that the Traditional Approach is unable to deal with occurrences of indexical expressions, precisely because of its insistence that the context of utterance u be admitted within the representations for the utterances under analysis. So, why not do without u altogether, and propose a representation involving an alternative contextual parameter? In the next section, I discuss the advantages and shortcomings of a proposal along these lines, the Context-Shift View. In section 6, I explain how my own monster-based solution synthesizes the benefits of the Traditional Approach and of the Context-Shift View, but avoids their disadvantages.

5. THE CONTEXT-SHIFT VIEW

The cases from sections 3 and 4 suggest a *prima facie* viable alternative to the Traditional Approach. The examples discussed thus far, so it may be pointed out, indicate that the desired readings for ‘actually’ and parallel expressions ought to be anchored to ‘the context c of the story’, rather than to the parameters in the context of utterance u . According to what I call the *Context-Shift View*, then, the representation for an utterance such as *Fict* (my utterance of ‘the Doolittle Raid took off in calm seas’ as a comment on the movie) includes a context c such that $c_w =$ the possible world determined by *Pearl Harbor* (similarly, with the appropriate adjustments, for time). Since the semantic relevance of this context is achieved at the representational level, appeal to unvoiced ‘world-shifting’ operators appears superfluous, and the clause involved in the representation for *Fact*, namely

(1a) take off in calm seas (the Doolittle Raid)

suffices for *Fict* as well.

The representational hypothesis put forth by the Context-Shift View is thus the mirror image of that suggested by the Traditional Approach. According to the latter, the representations for *Fact* and *Fict* agree with respect to their contextual parameter, the context of utterance u , but diverge when it comes to the choice of the appropriate clause. For the Context-Shift View, on the other hand, the obvious clause appropriate for *Fact* suffices in the case of *Fict* as well, and the desired contrasting semantic results may be obtained by appealing to distinct contexts, respectively u and c . This solution immediately yields the correct evaluation for *Fict*, given that $\mathbf{True}_c(1a)$, that is, $[[[(1a)]]]_{c,w^*} = T$, where $w^* = c_w =$ the possible world determined by *Pearl Harbor*. An explicit endorsement of the Context-Shift View can for instance be found in the following passage from my Predelli 2005:

... the representation appropriate for my utterance about the film does not involve the [context of utterance], but rather [a context] that contains the world of the movie as its world co-ordinate. It follows from this thesis, together with the classic definition of truth, that my cinematographic remark is true *simpliciter* iff it is true at the world [of the fiction](Predelli, 2005, 72)¹¹

An option along these lines struck me as at least initially worthy of consideration. After all, at least according to some proposals, a variety of examples provide *independent* support for the notion that the context involved in the representation of an utterance may fail to include some of the parameters of utterance, such as the time or possible world at which it takes place. For instance, cases of recorded messages and/or instances involving the so-called historical-present tense may seem to be naturally analyzable by taking into consideration a time distinct from the time of utterance—roughly and negotiably, the time the speaker ‘intends as relevant’.¹² Moreover, the Context Shift View does indeed appear to fare well with respect to the other examples discussed thus far. Recall my utterance of

(2) even though the American commanders thought he was further away, admiral Yamamoto was actually within reach of American fighters.

Its representation, involving c and the clause

actually(being within reach(Yamamoto))

turns out true, since $[[\text{Yamamoto}]]_{c,w^*} \in [[\text{being within reach}]]_{c,w^*}$, where w^* is as usual the possible world determined by *Pearl Harbour*. Similarly, *mutatis mutandis*, for the other examples presented in section 4.

There are however at least three considerations for being less than fully satisfied with the Context-Shift View as an alternative to the solution I now defend in section 6, which cast some doubts on the Context-Shift View's choice of context, and on its unwillingness to envision unvoiced operators. As for the former issue, occurrences of 'actual' in utterances intended as fictional commentaries *do* indeed sometimes refer to the actual world, the possible world we inhabit. So, I may comment on *Pearl Harbor*'s historical inaccuracy by exclaiming

(5) Yamamoto's location is different from his actual location

while watching the course of events narrated by the movie. The intuitive semantic profile for my utterance may be obtained only if 'actually' is evaluated with respect to the possible world in which my utterance takes place. Yet, in the Context-Shift View, such possible world is never 'on the record': the appropriate representation fails to include u , the context reflecting the circumstances in which my remark takes place. More precisely, by representing my utterance by means of the context c including the possible world c_w determined by *Pearl Harbour* and of the clause

$$(ix)(\text{at } x(\text{Yamamoto})) \neq (ix)(\text{actually}(\text{at } x(\text{Yamamoto})))$$

the Context-Shift View only obtains an undesired result of trivial falsehood.¹³

The argument in the foregoing paragraph may arguably be circumvented by postulating a further 'contextual shift' taking place before the occurrence of the second part of my utterance. In this view, although my sub-utterance of 'Yamamoto's location' is appropriately represented by means of c , my continuation 'his actual location' reverts to u , the context of utterance. With respect to u , of course, 'actually' is straightforwardly interpreted in the intuitively desirable way. The idea of contextual shifts taking place as an utterance progresses is not without independent plausibility. So, for instance, an utterance of 'you should not shoot now, you should shoot now' may well be evaluated as true, as long as the occurrences of 'now' are anchored to distinct contextual times, such that only the latter is a suitable time for shooting. Still, this epicycle does not suffice to rescue the Context-Shift View from another type of shortcoming. I turn to the discussion of two examples related to it in

the remainder of this section, before I proceed with the presentation of my solution in section 6.

The Context-Shift View provides an analysis of cases such as *Fict* in which explicit indication of the relevant fictional scenario is absent: no voiced expression in my utterance of ‘the Doolittle raid took off in calm seas’ makes reference to *Pearl Harbor* and, according to the Context-Shift View, no expression within the appropriate clause does so either. Still, other cases do involve locutions of this sort, such as my utterance of

(6) according to *Pearl Harbor*, the Doolittle raid took off in calm seas.

The Context-Shift View fails to provide any analysis of ‘according to *Pearl Harbor*’, but if the arguments put forth in sections 3 and 4 are on the right track, such an expression may not be treated along intensional lines, as suggested by the Traditional Account of *FT*. My proposal in section 6 claims that the appropriate operator, be it introduced as an unvoiced element within the clause for examples such as *Fict* or as the analysis of explicit uses of ‘according to *Pearl Harbor*’, ought to be understood as a modal monster. This proposal may be endorsed by the defender of the Context-Shift View as an analysis of ‘according to *Pearl Harbor*’, side by side with the operator-free treatment of cases such as *Fict*. This extension of the Context-Shift View would however be in agreement with at least one of the main theses of this essay, namely that monsters are indeed needed tools for the analysis of natural languages, even though it would disagree with its further claim that monsters also appear within the representation for *Fict* and similar instances.¹⁴

But even the suggestion that the Context-Shift View suffices for the analysis of cases that do not involve explicit uses of ‘according to *Pearl Harbor*’ is insufficient. Consider

(7) Yamamoto could have been killed by an American fighter during the attack.

This sentence could be uttered with the intention of commenting on the actual modal profile of Yamamoto: it was a (remote) possibility that his location in Japanese waters be reached by American fighters. It could also be used as a remark on the possible course of events from the movie’s viewpoint: according to *Pearl Harbour*, Yamamoto could die during the attack. Both readings, of course, are easily handled by the Context-Shift View: the former, by appealing to the obvious context *u* of utterance, the latter by shifting semantic evaluation to the context *c* including the possible world determined by the film. But (7) could also be used with the intention of advancing a different claim with respect to

Pearl Harbor, as when occurring within a discourse along the following lines:

Michael Bay would have achieved more dramatic results by recounting an even less historically accurate tale. Roosevelt could have died of a heart attack upon hearing of the Japanese raid. And Yamamoto could have been killed by an American fighter during the attack.

Consider then an utterance of (7) in such a setting. Its truth-value apparently depends on the actual modal profile of Bay's output, rather than on the (actual or fictional) modal properties of Yamamoto: *Pearl Harbor* could have been such that, according to it, Yamamoto is killed during the attack (or, depending on one's view on the modal elasticity of movies, a movie in all respects identical to *Pearl Harbor* could have been produced, except for its depiction of Yamamoto's death). Leaving aside the independent inadequacy of its intensional treatment of *FT*, the Traditional Approach is equipped with the resources needed for the analysis of this example. According to it, the clause involved in its representation is something along the lines of

(7a) Possibly $\exists x (x \cong \textit{Pearl Harbor} \ \& \ FT(x, \text{be killed (Yamamoto)}))$,

namely a clause which turns out **True_u** (where *u* is as usual the context of utterance) iff in some possible world accessible from our world a movie identical with (or relevantly similar to) *Pearl Harbor* narrates the story of the admiral's untimely demise. The Context-Shift View alone, on the other hand, seems powerless in this respect: since nothing in its treatment of discourse about fiction allows for an expression denoting *Pearl Harbor*, no clause may be supplied which addresses its modal profile.

These shortcomings of the Context-Shift View indirectly indicate the shape for a more satisfactory replacement of the Traditional Approach. As shown above, the problems for the Context-Shift View stem respectively from its disregard for the parameters of the context of utterance, and from the insufficient syntactic complexity in the clauses it proposes. Both issues indicate that the representational attitude promoted by the Traditional Approach was on the right track: the context of utterance may well be taken into account, as long as an appropriate operator induces the sorts of shifts needed in order to obtain the correct semantic results. The mistake with the Traditional Approach must then

lie in its choice of the operator in question, that is, in its commitment to an analysis in terms of intensional operators such as *FT*. In the next section I defend an alternative hypothesis of the clauses within the representations of utterances about fiction, grounded on the idea of monstrous operators.

6. MONSTERS

The compositional system's double-index format naturally suggests the possibility of operators that do not affect the points of evaluation, as intensional operators do, but the context—in Kaplan's terminology, *monsters*. An operator *M* of this sort could then be defined as $[[M\varphi]]_{c,w}=T$ iff $[[\varphi]]_{c',w}=T$ for $K(c')$, where *K* is some condition on the relevant context(s). Of course, the very same double-index format also allows for monstrous operators that *also* affect the point of evaluation, as in $[[M^*\varphi]]_{c,w}=T$ iff $[[\varphi]]_{c',w^*}=T$, for $K(c')$ and $J(w')$, given appropriate conditions *K* and *J*. In the case relevant for the topic under discussion in this essay, the condition of the shifted context results in the abandonment of the possible world selected by the original context *c*, and in its replacement with the possible world determined by the appropriate fiction. Thus, an operator *FM* may be defined as follows:

$$[[FM(\alpha, \varphi)]]_{c,w} = T \text{ iff } [[\varphi]]_{c^*,w^*} = T, \text{ where } c^* \text{ is just like } c \text{ except} \\ \text{that } c_w^* = w^* = \text{the possible world determined by } [[\alpha]]_{c,w}$$

(similarly, with opportune adjustments, for the temporal parameter).

The view of discourse about fiction defended in this section, hereinafter *The Monster Solution*, holds that cases such as *Fict*, my utterance of 'the Doolittle raid took off in calm seas' as we exit the theatre, are appropriately representable by means of a clause–context pair containing the context of utterance *u* together with the clause

(1m) *FM*(Pearl Harbor, take off in calm seas (the Doolittle raid)).

So, in agreement with the Traditional Account and against the Context-Shift View, the Monster Account approaches cases such as *Fict* by appealing to syntactic resources, that is, by supplying the compositional system with a clause containing a sentential operator roughly paraphrasable as 'according to *Pearl Harbor*'. As was the case with the Traditional Account, the Monster Solution may thus immediately be extended to the analysis of cases containing explicit occurrences of locutions of this sort, such as my utterance of 'according to *Pearl*

Harbor, the Doolittle raid took off in calm seas'. Unlike the Traditional Account, however, the Monster Solution gives due recognition to the fundamental insight of the Context-Shift View, namely the notion that the right sort of semantic shifts must in this case affect the contextual parameter, rather than merely the parameters addressed by intensional operators.

The intuitively desired result of truth for *Fict* is immediately derivable from the Monster Solution. Given a representation of *Fict* as $\langle u, (1m) \rangle$, *Fict* turns out true iff $\mathbf{True}_u(1m)$, that is, iff $[[[(1m)]]_{u,w'}=T$, where $w'=u_w$. By the definition of *FM*, this is the case iff $[[\text{take off in calm seas (the Doolittle raid)}]]_{c,w^*}=T$, where $c_w = w^*$ = the possible world of *Pearl Harbour*, that is, iff, according to the movie, the Doolittle raid takes off in calm seas. The superiority of the Monster Solution over the rival analyses I considered above emerges once it is applied to those examples with respect to which the Traditional Account or the Context-Shift View yield undesirable conclusions. I turn to the analysis of utterances about *Pearl Harbor* including (overt or covert) occurrences of the modal indexical operator 'actually' in the next paragraph. I then proceed to the discussion of the cases that proved problematic for the Context-Shift View in the final paragraphs of this section.

Recall my utterance of

- (2) even though the American commanders thought he was further away, admiral Yamamoto was actually within reach of American fighters

conveying that, according to the movie, Yamamoto was closer than what the Americans thought, and my utterance of

- (3) all Japanese planes could have survived the raid

occurring in the settings described in section 4. Since both utterances aim at describing the course of events depicted in *Pearl Harbor*, they are represented in terms of clauses containing *FM*, that is, respectively (and omitting explicit mention of the movie)

(2m) *FM* (actually (be within reach(Yamamoto)))

(3m) *FM* (Possibly ($\forall x$) (actually plane(x) \rightarrow survive(x)))

where, as explained above, 'actually' is interpreted indexically (that is, for those sympathetic to Lewis' distinction between different senses of the English adverb 'actually', where 'actually' is interpreted as 'actually_i'). Unlike the Traditional Account, the Monster Solution reaches the desired truth-conditional results in either case. As usual, let u be the context containing the world and time of utterance, and c the

context whose possible world parameter is w^* , the possible world determined by *Pearl Harbor*. The former example turns out true, since $\mathbf{True}_u(2m)$ iff $[[\text{actually}(\text{be within reach}(\text{Yamamoto}))]]_{c,w^*}=\mathbf{T}$, namely iff $[[(\text{be within reach}(\text{Yamamoto}))]]_{c^*,w^*}=\mathbf{T}$. Similarly, the latter case is assigned the appropriate collective reading: $\mathbf{True}_u(3m)$ iff $[[(\text{Possibly}(\forall x)(\text{actually plane}(x) \rightarrow \text{survive}(x)))]_{c,w^*}=\mathbf{T}$, that is, iff for some possible world w^{**} accessible from w^* all objects that are a plane at w^* survive in w^{**} .

The Monster Solution thus shares the benefits of the Context-Shift View, deriving from the attention to a context distinct from the context of utterance. But this result is achieved in fundamentally different ways—in the Context-Shift View, by means of representational maneuvers that ignore the parameters of utterance, in the Monster Solution as the effect of operators on (among other things) context. The advantages of the latter strategy emerge by focusing on the examples that proved problematic from the viewpoint of the Context-Shift View. Let us begin with my utterance of

(5) Yamamoto's location is different from his actual location

aimed at stressing the movie's historical inaccuracy. The Monster Solution obtains the desired result by representing this example by means of the context of utterance u and a clause along the lines of

(5m) $(ix)[FM(\text{at } x(\text{Yamamoto}))] \neq (ix)[\text{actually}(\text{at } x(\text{Yamamoto}))]$

(the details of the derivation are left as an exercise for the reader). In general, then, the alternative readings of occurrences of 'actually' in discourse about fiction, such as those exemplified respectively by my utterance of (2) (where 'actually' is intuitively anchored to the fictional context) and by my utterance of (5) (where it is interpreted with respect to the context of utterance) are naturally explained in terms of the relative scope-relations between the modal operators in question, the monstrous operator FM , and the indexical operator 'actually'.

Another example that proved problematic from the viewpoint of the Context-Shift View, my utterance of

(7) Yamamoto could have been killed by an American fighter during the attack,

is also correctly analyzed by the Monster Account. The reading appropriate for this case had to do with the modal profile of *Pearl Harbor*: it is an actual possibility that *Pearl Harbor* (or a movie significantly similar to it) be such that, according to it, Yamamoto is

killed during the raid. According to the Monster Solution, the clause appropriate for my utterance is

(7m) Possibly $\exists x (x \cong \textit{Pearl Harbor} \ \& \ FM(x, \text{ be killed (Yamamoto)}))$, a clause true with respect to the context of utterance u if at some possible world w^{**} there exists a suitable fiction narrating Yamamoto's death in 1941. More precisely: $\mathbf{True}_u(7m)$ iff (continuing to ignore time) for all f , $[[(7m)]]_{f,u,w} = T$, where $w = u_w$ that is, iff for some w^{**} accessible from u_w and for some assignment of values to variables g just like f except at most for x ,

$$[[x \cong \textit{Pearl Harbor} \ \& \ FM(x, \text{ be killed (Yamamoto)}))]]_{g,u,w^{**}} = T.$$

This amounts to the condition that there be some possible movie $g(x)$ relevantly related to *Pearl Harbor* such that $[[\text{be killed (Yamamoto)}]]_{g,c,w^{***}}$, where $c_w = w^{***} =$ the possible world determined by $g(x)$.

7. CONCLUSION

In this essay, I defended the Monster Solution by stressing the insufficiency of two alternative proposals, the Traditional Account and the Context-Shift View, and by explaining how an analysis in terms of monstrous operators achieves the desired results. Although a strategy of this sort may arguably not suffice as a *proof* of the Monster Solution, it indicates that an analysis of talk about fiction grounded on the notion of context-shifting modal operators is at least worthy of serious consideration. This result is of semantic significance: talk about fiction is an independently noteworthy topic, of interest to philosophers of language and natural language semanticists.

But the reasons for being interested in the Monster Solution transcend its ability to deal with cases such as *Fict* or the other examples discussed above. In particular, according to some of the main philosophical *auctoritates* in the analysis of indexical languages, modal (and temporal) monsters may not be incorporated within a fruitful analysis of natural languages for general semantic reasons. So, to cite two well-known examples, David Kaplan argues that monsters (be they modal or otherwise) 'could not be added' to a natural language on the basis of his 'conceptual understanding of what each index [in the double-index approach] stands for' (Kaplan, 1977: 510), and David Israel and John Perry infer the impossibility of modal (and temporal) monsters from premises having to do with their *utterance-based* approach to semantics (Israel and Perry, 1996). But if my considerations in favor of the role for modal monsters in the analysis of certain phenomena are correct, the arguments put forth by Israel, Perry, and Kaplan must be unsound. The study of where these arguments went wrong may then help

unveil important unjustified assumptions within the dominant approach to indexicality and natural language.

NOTES

- ¹ The need for a *semantic* account of the intuitive difference between *Fict* and *Fact* has been challenged in Bach (1987) and Bertolet (1984). Even those who question the semantic approach to *Fict* defended in this paper may however be interested in the general thesis it defends—more on this in footnote 14.
- ² This terminology is introduced in Kaplan (1977), section VIII.
- ³ For the conjunction of a sympathetic attitude towards epistemic monsters and the rejection of modal monsters, see Israel and Perry (1996). For a detailed empirical study of monsters in a variety of natural languages, with an explicit focus on epistemic monsters, see Schlenker (2003).
- ⁴ For this sense of ‘context’ see for instance Kaplan (1977).
- ⁵ For these definitions see Kaplan (1977) and Lewis (1980).
- ⁶ In this sense, ‘setting’ should not be confused with ‘context’, namely with the collection of the parameters required by the meaning of indexical expressions. Although a setting supplies the information needed for the selection of the appropriate context, a variety of aspects in a setting are arguably idle with respect to the interpretation of the indexicals in the language.
- ⁷ For a detailed presentation of (different variations upon) the Traditional Approach, see Lewis (1978). Casual and less detailed commitments to the Traditional Approach are ubiquitous.
- ⁸ The notion of ‘importation’ is derived from the classic treatment of these and related issues in Lewis (1978). Further difficulties are presumably raised by inconsistent fictions, that is, by narratives that apparently fail to determine any possible world. On these and related issues see for instance Currie (1986).
- ⁹ Other readings are available for ‘Yamamoto could have been taller than he actually is’; for a discussion of a relevantly parallel case, see section 5.
- ¹⁰ These considerations are inspired by Crossley and Humberstone (1977).
- ¹¹ For hints in a similar direction see also Reimer (2005).
- ¹² See for instance Corazza et al. (2002), Predelli (2005), and Romdenh-Romluc (2002).
- ¹³ Nothing of importance hinges on the treatment of definite descriptions adopted here.
- ¹⁴ Similar considerations apply to the positions mentioned in footnote 1: even those who resist an account of *Fict* in terms of hidden operators may well be interested in the analysis of the semantic behavior of overt expressions such as ‘according to *Pearl Harbour*’.

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