8

Tense in Fiction

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1   The initial problem

What is the function of tenses in novels, short stories and plays? To get an idea
of what I mean by this question and of the reason why I think the answer is not
obvious, consider the opening passage of *The Thirty-Nine Steps*, a mystery by
John Buchan:

> I returned from the City about three o'clock on that May after-
> noon pretty well disgusted with life. I had been three months
> in the Old Country, and was fed up with it. If anyone had told
> me a year ago that I would have been feeling like that I should
> have laughed at him; but there was the fact. The weather made
> me liverish, the talk of the ordinary Englishman made me sick,
> I couldn't get enough exercise, and the amusements of London
> seemed as flat as soda-water that has been standing in the sun.
> 'Richard Hannay,' I kept telling myself, 'you have got into the
> wrong ditch, my friend, and you had better climb out.' [...]

Now, compare the occurrence of (1) in Buchan's novel with my utterance of
sentence (2), that reports a real world event:

(1)   I returned from the City about three o'clock

(2)   Buchan wrote *The Thirty-Nine Steps*

In my utterance of (2), the function of the past tense is to place an event, the writing of the novel, at an interval that precedes the time at which (2) is uttered. Sentence (1), however, is uttered by a fictional character, Richard Hannay, at a time that is not specified in the novel. Since the novel doesn't tell us when (1) is uttered by Hannay, we should conclude that there is no particular time which is the time of utterance of (1) in the story. In view of this fact, can we still claim that the function of the past tense in (1), as it occurs in Buchan's novel, is to locate the event described by the sentence, the return from the City, at an interval that precedes the time at which (1) is uttered?

Sections 2-7 are devoted to answering this question. First, I'll present some possible answers and I'll argue that they run into serious difficulties. Then, I'll propose a solution which, in my view, avoids these difficulties. This solution has some consequences for the analysis of sentences of the form *In the novel, ϕ*. I'll discuss these consequences informally in section 8. In sections 9-10, I'll outline a formal analysis of sentences of this form based on the conclusions reached in 8. In sections 11-12, I'll illustrate some predictions of the analysis. In section 13, I'll raise some problems that will result in the revised version of the semantics for *In the novel, ϕ* presented in section 14. In section 15, I'll point out some remaining problems. Finally, in section 16, I'll discuss how this analysis can be extended to account for sentences of the form *In the text, ϕ*.

2   Text, paratext, metatext

Before I proceed to tackle the issue described in the previous section, I'll introduce some terms that I'll be using in the discussion. Following Bonomi (1998, 1994), I'll distinguish three types of sentences in relation to a text. Given a text α, the *textual sentences of* α are the sentences that are part of α. For example, sentence (1) is the beginning of the novel *The Thirty-Nine Steps*, thus it's a textual sentence of this novel.

(1)   I returned from the City about three o'clock

The *paratextual sentences based on a text* α are those sentences whose truth only depends on the information provided by α (in the context in which α is produced).[1] For example, sentence (3) below is not a textual sentence of *The Thirty-Nine Steps*, but it's true on the basis of the information provided by the novel, thus it's a paratextual sentence based on *The Thirty-Nine Steps*:

(3)   Hannay is fed up with London

Paratextual sentences based on a text α may be regarded as abbreviations of sentences of the form *In α, ϕ*. For example, sentence (3) may be paraphrased

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[1]We need the qualification relative to the context of production, since the truth of a paratextual sentence based on a text may depend not only on what is explicitly said in the text, but also on the knowledge shared by the audience. I come back to this issue in section 13.

as (4):

(4)   In *The Thirty-Nine Steps*, Hannay is fed up with London

Finally, the *metatextual sentences relative to a text* α are sentences that are neither part of α nor based only on the information provided by α, but are nonetheless *about* α. For example, sentence (5) below is neither part of *The Thirty-Nine Steps* nor is based on the information contained in *The Thirty-Nine Steps*, but is nonetheless about *The Thirty-Nine Steps*:

(5)   Richard Hannay is a fictional character much admired by Graham Greene

3   The atemporal view

Let's now come back to the problem raised in section 1 concerning the function of tenses in textual sentences of works of fiction. A possible view one may adopt to cope with this problem is the following. In texts of fiction, tenses lack their ordinary interpretations; in particular, unlike in texts that aim at reporting facts, tenses in texts of fiction do not express temporal relations, they do not indicate anteriority, posteriority or coincidence with the time of utterance. I'll refer to this position as *the atemporal view* of tenses in fiction.[2] It should be clear that, if we accept the atemporal view, the problem raised in section 8 disappears. Indeed, if tenses in texts of fiction do not express anteriority, posteriority or coincidence with the time of utterance, we may conclude that the past tense in the opening sentence of Buchan's novel does not have the function of placing the return from the City at a time that precedes the time of utterance. Thus, no embarrassing questions about the time of utterance of this sentence in the story need to arise.

Notice that, in principle, the view that tenses in texts of fiction fail to express temporal relations does not commit us to the assumption that the interpretations of the *tense forms*, i.e. of the morphological markers that carry temporal information, in these texts are unrelated to the interpretations of the same tense forms in texts that are meant to report real world events. To see why the atemporal view involves no such commitment, consider, for example, the following Italian text:[3]

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[2]The author that comes closer to this formulation is Bache (1986). A similar position is also suggested by various observations in Hamburger (1956), Weinrich (1964), Sternberg (1978), but it's not clear to me to what extent these authors would agree with my statement of the atemporal view. Indeed, Hamburger restricts the atemporal view to the use of the preterite in epic texts. Weinrich, on the other hand, extends Hamburger's thesis by claiming that the function of tenses is to signal certain modes of discourse (narration, comment) rather than to express time relations. However, in this respect, he does not seem to distinguish between texts of fiction and texts of non fiction.

[3]From *Conversazione in Sicilia* by Elio Vittorini.

Io ero, in quell'inverno, in preda ad astratti furori. [. . .] Da molto tempo questo, ed ero col capo chino. Vedevo manifesti di giornali squillanti e chinavo il capo; vedevo amici, per un'ora, due ore, e stavo con loro senza dire una parola, chinavo il capo [. . .] pensavo il genere umano perduto e chinavo il capo, e pioveva, e non dicevo una parola agli amici, e l'acqua mi entrava nelle scarpe. [. . .] Allora giunse una lettera di mio padre. [. . .] Aprii la lettera [. . .]

I was-impf., that winter, subject to abstract fits of anger. [. . .] This had been going on for a long time, and my head was-impf bent. I saw-impf garish newspaper posters and I bent-impf my head; I met-impf with friends, for an hour, two hours, and I staid-impf with them without saying a word, I bent-impf my head [. . .] I thought-impf the human race lost and I bent-impf my head, and it rained-impf, and I uttered-impf no word to my friends, and the water came-impf through my shoes. [. . .] Then, a letter from my father came-pfv [. . .] I opened-pfv the letter [. . .]

All the sentences that make up this text are in the *imperfetto*, except for the last two, which are in the *passato remoto*. The imperfective sentences describe past situations that occupy more or less the same time stretch and that provide a background to the sequence of past events described by the sentences in the *passato remoto*. This illustrates the fact that tense forms like *imperfetto* and *passato remoto* convey both a temporal relation and a discourse relation. In particular, they both express anteriority relative to the time of speech, but differ in the discourse relations they convey: the sentences in the *passato remoto* present a sequence of events (whose temporal order usually reflects the order of the sentences of the text), the sentences in the *imperfetto* present overlapping events that provide a background to this sequence.[4] If we assume that the meanings of *imperfetto* and *passato remoto* in non-fictional texts are the sum of these two components, a temporal relation and a discourse relation, we might describe the role of these tense forms in fictional texts in this way, according to the atemporal view: in texts of fiction, *imperfetto* and *passato remoto* express the same discourse relations they convey in reports of real world events, but no longer express temporal relations.

According to this hypothesis, tense forms in texts of fiction would exhibit a meaning shift similar to the one that, according to some semantic theories of metaphor, words undergo in metaphorical contexts. According to these theories, when a word is used metaphorically, only some features of its meaning

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[4]On the discourse relations associated with different tense forms see Reinhart (1984), Kamp and Reyle (1993), and Lascarides and Asher (1993).

are retained, while other features are eliminated.[5] Similarly, tense forms in fictional texts would retain only some of the semantic functions normally associated to them.

The atemporal view of tenses in texts of fiction, while it avoids the problem described in section 8 concerning the anchoring of tenses to the time of utterance, fails however to capture some intuitions concerning the use of tenses in these texts. Compare the opening of Buchan's novel with the opening of a novel by Tonino Guerra, *La Pioggia Tiepida*:

> E così mi trovo in un treno in partenza per Leningrado. Subito dopo raggiungerò la Georgia dove mi attende l'amico Agagianian per accompagnarmi nei posti delle acque termali. Mi scappa via l'Italia dalle mani con rettangoli di grano abbrustolito e altro tagliato e luccicante come striscioni di lumache. [...]
>
> *So I find myself on a train leaving for Leningrad. Right after that, I'll get to Georgia where my friend Agagianian is waiting to take me to the spa places. Italy is rushing away from my hands with squares of toasted wheat and more, cut and shining like snail tracks. [...]*

While in Buchan's text, the return from the City is presented as an event that precedes the time at which the narrator is talking, in Guerra's text the event of boarding the train to Leningrad is presented as an event that temporally coincides with the time of narration, and the arrival in Georgia as an event that follows that time. If tenses in fictions do not temporally locate events relative to a time of utterance, how can these differences resulting from the use of past, present and future tenses in these texts be explained? The hypothesis that tenses in fiction do not express temporal relations is too radical a way out of the problem described in section 8: it avoids this problem, but it also prevents us from making sense of the intuitive observation that the events presented in above texts are located differently with respect to the time of narration.[6]

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[5]See, for instance, Beardsley (1962) and Cohen and Margalit (1972). This way of analyzing metaphors, however, is rejected by authors that treat metaphorical meaning as a pragmatic implicature (Grice (1975), Davidson (1978), and Searle (1978)). According to the pragmatic account, words keep their literal meanings in metaphorical utterances.

[6]See Bonomi (1998) for this observation. This problem for the atemporal view is also raised in Ricoeur (1984):

> If I agreed with Käte Hamburger and Harald Weinrich in severing the preterite of narration from its reference to lived time, hence to the "real" past of a "real" subject who remembers or reconstructs a "real" historical past, it finally seems to me insufficient to say, with the first author, that the preterite preserves its grammatical form while casting off its signification of the past, and, with the second author, that the preterite is only the signal of the entry into narrative. For why should the preterite preserve its grammatical form if it had lost *all* temporal signification? And why should it be the privileged signal of the entry into narrative?

4 The fictional time line view

A different answer to the problem raised in section 1 is this. In fictional texts, like in non-fictional ones, tenses express temporal relations, their function is to locate events at times that precede, follow, or coincide with a point of origin, usually identified with the time of utterance.[7] However, in the case of texts of fiction, these events and point of origin are not located by tenses on the same time axis as real world events, but on a different time axis: the *fictional text's own time axis*. For example, the past tense in the opening sentence of Buchan's novel locates the return from the City of the protagonist in the past with respect to a point of origin located on the novel's time axis.

(1)   I returned from the City about three o'clock

I'll refer to this view of the role of tenses in fiction as *the fictional time line view*.[8]

If we represent time as a line with a direction, where each point on the line corresponds to an instant and the spatial position of the points on the line reflects the relation of temporal precedence between these instants, the fictional time line view may be illustrated in this way. In the case of a text that aims at describing facts, the event e described by a simple past sentence and the point of origin s are located thus on the real time axis r:

$$r : \; -- \;\text{------}\; e \;\text{------}\; s \;\text{------}>$$

In the case of a text of fiction like *The Thirty-Nine Steps*, the event e described by the simple past sentence (1) and the point of origin s stand in the same

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One answer comes to mind. Could we not say that the preterite preserves its grammatical form and its privilege because the present of narration is understood by the reader as *posterior* to the narrated story, hence the told story is the *past of the narrative voice*? [pp. 98-99]

[7]It is convenient to use the term point of origin in talking about the interpretation of tenses, because this interval, though it is normally identified with the time of utterance, doesn't always coincide with it. I'll come back to this issue in section 9.

[8]This view has been considered, but not endorsed, in Bonomi (1998). It is also suggested in the following passage from Ricoeur (1984) :

As the author of some discourse, the narrator in fact determines a present -the present of narration- which is just as fictive as the instance of discourse constituting the narrative utterance [. . .] There is no reason to exclude the notion of a fictive present, once we admit that the characters are themselves the fictive subjects of thoughts, feelings and discourse. These characters unfold their own time in the fiction, a time that includes a past, present, and future -even quasi-present- as they shift their temporal axis in the course of the fiction. It is this fictive present that we attribute to the fictive author of the discourse, to the narrator. [p. 98]

relation of temporal precedence (e precedes s), but on a different time axis, the time axis of the novel (designated by 39 in the picture):

(1)   I returned from the City about three o'clock

$$39 : \quad -- \; \text{———} \; e \; \text{———} \; s \; \text{———} >$$

One advantage of this view is that it provides an answer to our initial problem without positing any special meanings for tenses in fictions. In texts of fiction, as in texts that are meant to report facts, tenses express anteriority, posteriority or coincidence with a point of origin. The difference between the two types of texts is in the anchoring of the point of origin (and, as a consequence, in the temporal dimensions on which the events the texts describe are located): in fictions, the point of origin is mapped onto a time on a fictional time axis, in factual reports onto a time on the real world time axis.

Notice that this approach also avoids the problem raised for the atemporal view of tenses by the passages from Buchan's and Guerra's novels. The atemporal view cannot make sense of the fact that in these passages different events are presented at times that precede, follow and coincide with the time of narration. However, according to the fictional time line approach, tenses in fiction do temporally locate events relative to such a time, they locate them relative to a point of origin placed on the fiction's own time axis.

Moreover, as Bonomi (1998) observes, it might be claimed that this view of the role of tenses in texts of fiction is supported by independent evidence. Consider sentences (6)-(8):

(6)   ?? In *Anna Karenina*, on the 5th of December 1863 there was a meeting of committee x.

(7)   In reality, on the 5th of December 1863 there was no meeting of committee x.

(8)   In *Anna Karenina*, on the 5th of December 1863 there is a meeting of committee x.

The use of the past tense is quite natural in (7), which talks about the real world, while it is awkward in (6), which talks about Tolstoj's fictional universe. Indeed, for paratextual sentences, the simple present is more appropriate, as (8) shows. It might be suggested that the contrast between (6) and (7) is explained by the assumption that the novel's temporal dimension is distinct from the temporal dimension of reality. Bonomi states this suggestion in this way: "if the temporal dimension of reality and that of the novel coincided, this contrast would not be justified. On the other hand, a natural explanation of the awkwardness of (6) . . . is that, due to the use of tense, the event at hand is presented as part of our past, while it is part of a fictional past."

While introducing a separate time axis for tenses in texts of fiction may avoid the problems of the atemporal view and also account for contrast (6)-(7), this move runs however into some problems of its own. One is raised by the use of dates in works of fiction. Consider, for example, the opening of Salman Rushdie's novel *Midnight's Children*:

> I was born in the city of Bombay... once upon a time. No, that won't do, there is no getting away from the date: I was born in Doctor Narlikar's Nursing Home on August 15th, 1947. And the time? The time matters too. Well then: at midnight. No, it's important to be more... On the stroke of midnight, as a matter of fact. Clock hands joined palms in respectful greeting as I came. [...]

In this passage, Rushdie is using the date *August 15th 1947* to evoke a set of actual events as background of the narration: the events that surround India's arrival at independence. If the temporal axis of the novel is the same as that on which real world events are located, this fact has a simple explanation. In the novel, the date refers to a time interval that, in the real world, is surrounded by these events. By a sort of principle of inertia, the reader assumes that, unless the novel indicates otherwise, the same events also surround this interval in the universe described by the novel. Suppose, however, that the time axis of the novel is distinct from the time axis of reality. In this case, the date *August 15th 1947* in the novel denotes an interval which is not the same as the interval it denotes in reality. Let i be the interval denoted by this date on the temporal axis of the novel. Since i is not the same interval as the 15th of August 1947 on the real world's time axis, why should we assume that the events surrounding i in the novel are those occurring around the 15th of August 1947 in the real world? If the temporal axis of the novel and that of reality are distinct, the fact that the mention of a date in a novel may evoke a certain set of actual events as background of the narration is hard to explain.[9]

The other difficulty for the fictional time line view is that it doesn't solve the problem we started out with, raised by the interpretation of the past tense in the opening sentence of Buchan's novel:

(1)   I returned from the City about three o'clock

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[9] The problem posed by dates is part of a more general problem concerning the semantics of names of real entities occurring in works of fiction. According to Bonomi (1994), the name *London* in *The Adventures of Sherlock Holmes* does not have its ordinary denotation. Parsons (1980) is more inclined to adopt the opposite thesis, according to which the fictional universe contains both individuals that are 'natives' of the fictional universe and individuals that are 'immigrants' from the real world. I won't pursue this issue further, since, as we will see next, there is an independent reason to reject the fictional time line view.

According to this view, the past tense in this occurrence of (1) locates the return from the City in the past with respect to a point of origin on the novel's time axis. As we pointed out, however, Buchan's text doesn't tell us when (1) is uttered by the protagonist. Thus, it seems plausible to claim that there is no interval s, either on the real time axis or on the novel's time axis, such that in *The Thirty-Nine Steps* s is the time at which Hannay utters (1) in the story. If this is correct, the fictional time line view leads us back to our initial problem: if there is no particular time which is the time of utterance of (1) in the novel, how can past tense in (1) locate the return from the City in the past with respect to the time of utterance?

These difficulties for the fictional time line view are serious enough to justify looking for an alternative account of the role of tenses in fiction. Recall, however, that contrast (6)-(8) has been construed as an argument for the fictional time line view. If we give up this view, how do we account for these data? There is an alternative explanation of this contrast suggested in Katz (1996) which does not require appealing to fictional time lines. As this issue concerns the semantics of paratextual sentences, however, I'll postpone the task of developing an alternative account of (6)-(8) to section 8. In the meantime, let's proceed with our search for a solution to our initial problem.

5   Some attempts to fix the point of origin of fictions

Another possible answer to the problem raised in section 1 is that, perhaps, we have been too fast in concluding that there is no particular time of utterance for the occurrence of (1) in Buchan's novel. One might object that, although Buchan's text doesn't tell us when (1) is uttered, the point of origin for the tense of (1) may still be fixed by other means. For example, one might claim that the time of utterance of a sentence that occurs in a work of fiction, and thus the time of utterance of this occurrence of (1), is the time at which the sentence was written by the author of the fiction. The problem for this view, as Bonomi (1994) observes, is that it's possible to start writing a novel on the 12th of August 1992 with the following sentence:

(9)   On the 12th of August 2042, on a rainy Sunday afternoon, a man crossed Third Avenue.

In (9), the past tense indicates that the crossing of the street takes place at an interval that precedes the time of utterance and the time adverb indicates that this interval is included in the 12th of August 2042. Thus, the time of utterance with respect to which the past tense in (9) is interpreted should be after the 12th of August 2042. But the time when the sentence was written precedes the 12th of August 2042. Thus, it's clear that, in the case of (9), identifying the point of origin of the past tense with the time at which the sentence is written leads to incorrect results.

Another possible hypothesis concerning the point of origin of tenses in fictions is that it coincides with the interval at which the text is read. In this case, for a text of fiction it would not make sense to talk about *the* point of origin of the text in an absolute sense, but it would only make sense to talk about the point of origin of the text relative to an event of reading the text: given a reading of a text *T*, the point of origin of *T* relative to this reading event is, roughly speaking, the interval occupied by the reading. Again, this hypothesis cannot be right. The tense of (9) is the simple past. Thus, the time of utterance of (9) must be after the 12th of August 2042. But the hypothesis would predict that, if you read (9) now, the time of utterance should be included in the year 2000.

Notice, by the way, that these problems for identifying the point of origin of texts of fiction with the time of writing and the time of reading may arise also if the text does not contain dates. Consider the following passage from Gore Vidal's novel *Myra Breckinridge*:

> I am Myra Breckinridge whom no man will ever possess. [. . .]
> From where I sit, without turning my head, I can see a window
> covered with venetian blinds. The fourth slat from the bottom
> is missing and so provides me with a glimpse of the midsection
> of the huge printed plaster chorus girl who holds a sombrero in
> one hand as she revolves slowly in front of the Château Marmont
> where Greta Garbo stays on her rare visits to Hollywood. [. . .]

Present tense locates the event described by the sentence it applies to at an interval that coincides with the point of origin. If the point of origin of the above passage coincided with the interval during which you read it in this paper, it should be included in the year 2000 or in a later year. However, from the last sentence of this text, it's clear that the author intends the point of origin to be included in an interval during which, in the real world, Garbo visits Hollywood from time to time. As Garbo stopped doing that several years before the year 2000, we must conclude that the point of origin with respect to which the tenses in Vidal's text are to be interpreted cannot be identified with the interval during which the text is read. Similarly, Vidal might have written this novel much after the time during which Garbo paid her rare visits to Hollywood, in which case the time of utterance of the text could not be identified with the time of writing.

Finally, yet another possibility concerning the point of origin of works of fiction is that of identifying it with the time at which the reader imagines that the narration in the fiction occurs. This proposal, like the one considered above which identifies the point of origin with the interval at which the text is read, would not allow us to talk of the point of origin of tenses in fiction in an absolute sense. It would only allow us to talk about the point of origin

relative to a reader. The problem with this view is that individual readers need not be thinking about any specific point of origin in reading a text of fiction. In reading sentence (1) in Buchan's novel, I may have no answer to the question: what time do I imagine this sentence to be uttered at?

If these observations, are correct, the point of origin of works of fiction doesn't necessarily coincide with the time during which the text is written nor with the time during which the text is read (given a reading occurrence) or with the time at which the reader imagines the narration to occur. What points of origin do works of fiction refer to then?

6   Dimensions of indeterminacy in fiction

To answer this question, let's abandon for a moment the temporal aspect of works of fiction and let's concentrate on a different issue. How tall was Alexander of Macedon? Not much, it seems.[10] But the historical chronicles do not tell us exactly how tall he was. Despite this gap in our knowledge, it's clear however that the question how tall was Alexander has a definite answer: someone who knew all there is to know about him would know precisely how tall he was. Let's now ask: how tall is Humbert Humbert? *Lolita* doesn't say. Unlike the question about Alexander's height, however, the question how tall is Humbert Humbert doesn't have a definite answer: someone who knew all there is to know about him would not know precisely how tall he was, because this property, Humbert Humbert's exact height, is not specified in the novel. Unlike real individuals, the characters of works of fiction are incomplete, they are not specified with respect to some properties. This is the reason why in possible world analyses of truth in fiction it is often claimed that, strictly speaking, it's incorrect to talk about *the world* of a work of fiction, and one must talk instead about a *plurality of worlds*.[11] As *Lolita* does not specify Humbert Humbert's height, *Lolita* does not describe a single world but a plurality of worlds: in some of these worlds Humbert Humbert will be five feet tall, in other worlds he'll be taller, in yet other worlds he'll be shorter.

Let's now come back to the temporal dimension of texts. Consider again the occurrence of (1) in Buchan's novel:

(1)   I returned from the City about three o'clock

What is the point of origin with respect to which the return from the City is located in the past by (1)? The novel doesn't tell us. As in the case of Humbert Humbert's height, there is no definite answer to this question. This means that, strictly speaking, it's incorrect to talk about *the* point of origin of (1) in

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[10]See Green (1992).

[11]See Lewis (1978) and Ross (1997), for instance.

The Thirty-Nine Steps, and one must talk instead about a *plurality of points of origin*.[12]

A preliminary characterization of this set might be the following: the plurality of points of origin that a text of fiction describes is the set of points of origin that are *compatible* with the text, where a point of origin is compatible with a text just in case there exists a world that realizes the text with respect to this point of origin. The task of making this initial characterization precise is that of spelling out what it means for a world to realize a text with respect to a point of origin. I'll take up this task in stating the the semantics of paratextual sentences in sections 8-10. For the time being, I'll illustrate what I mean with an example. Consider again the opening of Vidal's novel:

> I am Myra Breckinridge whom no man will ever possess. [...]
> From where I sit, without turning my head, I can see a window
> covered with venetian blinds. The fourth slat from the bottom
> is missing and so provides me with a glimpse of the midsection
> of the huge printed plaster chorus girl who holds a sombrero in
> one hand as she revolves slowly in front of the Château Marmont
> where Greta Garbo stays on her rare visits to Hollywood. [...]

The novel doesn't tell us when Myra is telling her story, but not every point of origin will do as a possible time of utterance for the present tense in the passage: the text clearly indicates that the time of utterance is included in an interval during which Garbo is alive. Thus, while after reading the first sentence of the text we may not be able to restrict the choice of the point of origin in any way, the text as a whole does restrict the choice of a possible point of origin. Indeed, any choice of a point of origin which identifies the time of narration with an interval during which Garbo is not alive will fail to realize the text in any world. Thus, points of origin of this sort are not among the possible times at which the above text is narrated.

Notice that the indeterminacy of the point of origin, while it is normally associated with texts of fiction, is perhaps not a necessary feature of texts of this type, certainly not every fragment of a text of fiction needs to be indeterminate in this respect. Vidal might have begun his novel differently. He could have written,

> It's now three in the afternoon of May 18th 1965. I am Myra

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[12]W. Klein (p. c.) objects to this conclusion since presumably sentence (i) is true:

(i)   In *The Adventures of Sherlock Holmes*, Watson knows the time at which he is narrating the story

However, this fact can be accounted for compatibly with the claim that there is no definite answer to the question what is the time at which Watson narrates the Holmes stories. I'll come back to this issue in sections 13-14.

> Breckinridge whom no man will ever possess. [. . .]

In this case, he would have eliminated the indeterminacy of the point of origin of the passage. But this choice, besides altering the style, would have changed the background evoked by the text. The mention of May 18th 1965 as the time of narration might have evoked certain events for the reader which were not evoked by the original passage. Vidal's choice, at this stage, was to identify the background simply as the time during which Garbo used to stay at the Château Marmont when she visited Hollywood.

Notice also that a similar indeterminacy can also be pointed out for the reference of temporal indexicals like *now* and, along the spatial dimension, of indexicals like *here*. Consider for instance the ending of *The Butterfly*, a short story by James M. Cain:

> [. . .] It's still raining out, but it's daylight now, and I've been listening to the water run off the roof and I've figured out what that was in the mine. It wasn't Moke. It was water dripping. Now I know what it is, I won't mind it any more, and tonight I'll get out of here.
>
> I'm cut off. Ed Blue is out there and

The story does not tell us to which time and place the occurrences of *now* and *here* in this passage refer. Again, we may conclude that there is no definite answer to the question: what do *now* and *here* refer to in this passage? Yet, the text as a whole restricts the choice of time and place to which these indexicals may refer: it's during the day, in a cabin, in a coal mining area. Time and place of utterance are both features of the context of utterance. If our claim concerning the reference of temporal and spatial indexicals is correct, we are led to the conclusion that texts of fiction are usually indeterminate with respect to the context of utterance:[13] they do not identify a single context, but a plurality of contexts, the set of contexts that are compatible with the text as a whole.

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[13]The contextual indeterminacy of texts of fiction was already pointed out, in general terms, in Barwise (1986). According to Barwise, the content P that the author of a text S wants to convey is determined by three factors: the set R of conventions of the language, the text S, and the contextual circumstances c shared by author and the readers. For literary texts, Barwise claims:

> the reader is faced with one equation in three unknowns: R, c, and P. Naturally, there is seldom a unique solution to this equation. The task of the interpreter is to use partial information about the unknowns to mutually narrow the range of possible values. The interpreter is concerned not so much with pinpointing the actual content of the work, but with discovering how the possible values of all three parameters depend on one another [. . .]

7 The indeterminacy view

We are now ready to tackle the issue raised in section 1: what is the function of tenses in novels, short stories and plays? The view I suggest is this. In texts of fiction tenses have exactly the same interpretations as in texts that are meant to report facts. The meaning that the grammar associates to tenses is described by this rule: given a point of origin, past, present and future tenses locate the event described by the tensed sentence at an interval that precedes, coincides with, or follows this point of origin. Understanding tenses in fiction does not amount to assigning any special meaning to them.[14]

Yet, since the point of origin of a text of fiction is not fixed, an occurrence of a tensed sentence in a text of this type does not have the function of locating the event described by the sentence with respect to a single point of origin. If a tensed sentence occurs in a text of fiction, its tense locates the event it describes with respect to a plurality of points of origin, the set of points of origin that are compatible with the text. The past tense in (1), as it occurs in Buchan's novel, locates the return from the City before any point of origin that is compatible with the text as a whole, before any point of origin such that there exists a world that realizes the text with respect to this point of origin.

(1)   I returned from the City about three o'clock

Understanding the difference between (1), as uttered by me, and an occurrence of (1) in a work of fiction does not amount to assigning different meanings to the past tense, but in grasping that the fixing of the point of origin for the two occurrences is regulated differently. If I utter (1), the point of origin for this occurrence must be identified with the time of utterance. If (1) occurs as part of a text of fiction, we have to allow for a multiplicity of points of origin, as in this case there is no fact of the matter concerning what the exact time of utterance of (1) is.

8 The tense of paratextual sentences

8.1 The missing reading

Let's now come back to the contrast between (6) and (8):

(6)   ?? In *Anna Karenina*, on the 5th of December 1863 there was a meeting of committee x.

(8)   In *Anna Karenina*, on the 5th of December 1863 there is a meeting of committee x.

At first glance, this contrast seems to show that in paratextual sentences the simple present is appropriate, while the simple past is awkward. However, it

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[14]The view that works of fiction do not involve any alteration of the meaning of words or other parts of speech is argued for in Searle (1974-75).

has been pointed out by Katz (1996) that the prohibition against past tense in paratextual sentences is not absolute. For example, sentence (10) is acceptable:

(10)   In Patrick O'Brian's first novel, Jack Aubrey was a post captain, in his new novel, he is a commodore, in the next novel he will be an admiral.

How should we describe then the generalization concerning the tense of paratextual sentences? It should be noticed that the past tense in (10) does not have the function of locating the events described by the novel in the past, much as present and future tenses in (10) do not locate Aubrey's commodore status in the present and his admiral status in the future. The Aubrey novels all narrate events that are imagined to take place during the Napoleonic age. The tenses in (10) refer, respectively, to the time of O'Brian's first novel, of O'Brian's new novel and of O'Brian's next novel. In view of examples like (6), (8) and (10), Katz suggests the restriction against past tense in paratextual sentences should thus be stated in this way: past tense in these sentences cannot locate the events described by the text of fiction in the past, it can only locate in the past the fictional text itself. The task of accounting for the tense of paratextual sentences is thus that of explaining why the first reading of the past tense (the one that temporally locates the events of the fiction) is missing and how the other reading (the one that temporally locates the fiction) can arise.

8.2 Katz's proposal

Katz (1996) claims that, in sentences of the form *In fiction x, ϕ*, the present tense locates the event described by ϕ within the time of the events narrated in *x*. For example, in (11), the interval at which the present tense locates the smashing of the ship is included in the interval at which the events narrated in *Moby Dick* take place.

(11)   In *Moby Dick*, the whale smashes the ship

Katz points out that there is some independent evidence for this hypothesis. In particular, the hypothesis explains why, in the scope of modifiers like *In the novel*, a well-known constraint on the use of the English simple present is no longer in force. Consider sentences (12)-(13), for example:

(12)   The whale is white

(13)   ?? The whale smashes the ship

This contrast illustrates to the fact that the English simple present only allows stative sentences.[15] As we saw in (11), however, (13) becomes acceptable in the scope of the modifier "In *Moby Dick*." Why? Contrast (12)-(13) is often explained in this way. The simple present requires that the sentence to which it

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[15]For the stative/non-stative distinction, see for example Vendler (1957).

applies be evaluated at a point of origin that normally coincides with the time of utterance. As the time of utterance is an instant, normally only sentences that can be true at instants should be acceptable in the simple present (since a sentence that cannot be true at an instant would always be false if evaluated at the time of utterance). Stative sentences, like the one to which the simple present applies in (12), can be true at instants. Indeed, the property of being white holds of the whale at any instant of the whale's life. On the other hand, non-stative sentences, like the one to which the simple present applies in (13), cannot be true at instants, since they necessarily involve a change of state that takes more than a moment. It follows that (12) should be acceptable and (13) anomalous.[16] Now, as Katz points out, the contrast between (11) and (13) is expected if the point of origin for evaluating the simple present in (13) is the time of utterance, while in (11) it's a time included in the interval during which the events narrated in *Moby Dick* take place. Indeed, in this case, the point of origin relevant to evaluate the simple present in (11) need not be not an instant, thus the simple present should be acceptable.

8.3 A tentative account of the missing reading

Building on Katz's suggestion concerning the point of origin of the simple present in paratextual sentences, we may provide a natural explanation of the missing reading of (6) (the question marks only signal the absence of this reading now):

(6) ?? In *Anna Karenina*, on the 5th of December 1863 there was a meeting of committee x.

(8) In *Anna Karenina*, on the 5th of December 1863 there is a meeting of committee x.

Following Reichenbach (1947), let's assume that tenses express relations between three temporal parameters, the speech point (what we called here the point of origin), the event point (the time at which the event described by the sentence occurs), and the reference point. In particular, the present tense requires, among other things, that the event point coincide with the speech point and the past tense that the event point precede the speech point. Suppose now that modifiers like *In the novel* impose the following requirement on any sentence S that occurs in their scope: the time of the event described by S must coincide with a point of origin that is included in the time occupied by the events narrated in the novel. In other words, according to this assumption, modifiers like *In the novel*, as far as the temporal dimension is concerned, impose two conditions on sentences in their scope: (i) the speech time is some interval in-

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[16]For this account of the distribution of the simple present, see, for instance, Bennett and Partee (1972) and Dowty (1979).

cluded in the time occupied by the events narrated in the novel (ii) the speech time must coincide with the event time. This proposal leads us to expect that, under representation (8'), sentence (8) should have a perfectly good interpretation: it should mean, what is correct, that the fictional committee meeting occurs at a time that is included in the time occupied by the events of the novel.

(8')　　In *Anna Karenina*, PRES [on the 5th of December 1863 there be a meeting of committee x]

On the other hand, sentence (6), under representation (6'), is predicted to be anomalous (thus, in particular (6), represented as (6'), cannot mean that the fictional committee meeting is in the past with respect to the time of utterance of (6)):

(6')　　In *Anna Karenina*, PAST [on the 5th of December 1863 there be a meeting of committee x]

Indeed, the use of the past tense in (6') requires the event time to precede the speech time, and this contradicts the requirement imposed by the modifier "In *Anna Karenina*" that the event time coincide with a speech time included in the time occupied by the events of the novel.

8.1　Letting in temporal indeterminacy

In this form, however, the account of the missing reading runs into a problem. The problem is that, strictly speaking, there is no such thing as *the time occupied by the events narrated in the novel*.[17] Usually, a text of fiction not only is undetermined with respect to the time at which the events described by the text are narrated, but also with respect to the time at which the events described by the text occur. Take the opening sentence of *The Thirty-Nine Steps* again:

(1)　　I returned from the City about three o'clock

The novel leaves undetermined the time at which Hannay is narrating the story, and the time of the return from the City is also left undetermined. As for other types of indeterminacy, there is no fact of the matter regarding the time at

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[17] A similar problem arises, by the way, for the account of the occurrence of present tense in paratextual sentences proposed in Klein (1994). According to Klein's theory (p. 139), the situation time of *the whale smashes the ship* in (11) is the time at which the smashing of the ship is imagined to occur by the speaker or the listener.

(11)　　In *Moby Dick*, the whale smashes the ship

The problem for this suggestion is that, if the novel leaves the situation time undetermined, the speaker or listener may have no particular time in mind, not even an imagined one, at which the situation described by the sentence in the scope of *In Moby Dick* occurs.

which the return from the City occurs. In view of the information provided by the text, there are many possible times at which this event could occur. This means that there are many intervals that the events narrated in *The Thirty-Nine Steps* could occupy.[18]

As for the indeterminacy of the point of origin, the temporal indeterminacy of the events of the story may be directly reduced, or in some case even eliminated by the text. For example, the opening of *Kidnapped* by Robert L. Stevenson does not tell us when the event of taking the key from the door occurs exactly, but it constrains the possible time of occurrence to a morning in early June during the year 1751:

> I will begin the story of my adventures with a certain morning early in the month of June, the year of grace 1751, when I took the key for the last time out of the door of my father's house. [...]

The opening of *Catriona* by the same author specifies the time of occurrence of the event of coming forth of the British Linen Company (almost) exactly:

> The 25th day of August, 1751, about two in the afternoon, I, David Balfour, came forth of the British Linen Company, a porter

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[18]Katz agrees with this, and indeed suggests that in stating the truth-conditions of paratextual sentences we should consider all the possible times of occurrence of the events narrated in the fiction, a suggestion that I take up below. However, Katz's semantics for paratextual sentences runs into some problems. He proposes the following truth-conditions (where each situation is specified by a time interval):

(a) 'In NP, ϕ' is true iff NP denotes x and for every situation s that belongs to the propositional content of x, ϕ is true in s.

The occurrence of the present tense in paratextual sentences is not handled correctly by this definition. Indeed, suppose that the text consists of sentence (i):

(i) The warm monsoon blew gently from the East

Presumably, the propositional content of the text is the set of situations such that there is a time before them in which the monsoon blows gently from the East. Thus, Katz's definition predicts incorrectly that sentence (ii) is false, since situations in the propositional content of the text don't have to include an event of the monsoon blowing from the East:

(ii) In the text, the monsoon blows from the East

Moreover, it's not clear to me that it is correct to assume that works of fiction always have a propositional content identified as a set of situations (Katz inherits this assumption from Ross (1997)). What is the propositional content associated with the occurrence of (iii) at the beginning of Paul Auster's story *The Locked Room*?

(iii) It seems to me now that Fanshawe was always there.

By the theory of propositional content proposed in Kaplan, there would be no single proposition expressed by this sentence, as the reference of the indexicals *here* and *now* is not fixed.

> attending me with a bag of money, and some of the chief of these merchants bowing me from their doors. [...]

Besides being directly reducible by specifying the event time, the temporal indeterminacy of the events of the story may be also reduced indirectly by constraining the time at which the story is told. Recall the quoted passage from Vidal's novel *Myra Breckinridge*. We saw that in this passage the point of origin of the narration is included in an interval during which Garbo has the habit of staying at the Château Marmont when she goes to Hollywood. Later on in the story, Myra tells us about her studies:

> In addition to my extraordinary physical presence, I studied the classics (in translation) at the New School, the contemporary French novel on my own, and I learned German last year in order to understand the films of the Thirties when UFA was a force to be reckoned with. [...]

This passage does not tell us when these events take place, but the use of the past tense indicates that they occur before the time at which Myra is narrating the story, thus they precede some interval included in the time during which Garbo has the habit of staying at the Château Marmont when she goes to Hollywood. In this case, a temporal constraint on the time of narration previously introduced in the text constrains the time of occurrence of the events described in the passage.

In view of the indeterminacy of the time occupied by the events of the story, we cannot equate this time with a single interval. Thus, in stating the truth-conditions of sentences of the form *In the novel, ϕ*, we have to consider all possible times of occurrence of the string of events of the story and check for the truth of ϕ with respect to (some interval included in) any such interval.

More precisely, the way of stating the truth-conditions of paratextual sentences I have in mind goes like this. Consider all ways of simultaneously fixing the speech time, the reference of temporal and spatial indexicals, and the time occupied by all the events of the story such that there is a world at which the text is true with respect to these parameters. This will give us the set of pairs event time-world $< e, w >$ that are compatible with the text as a whole.[19] A sentence of the form *In the novel, ϕ* is true iff this condition is met: for any such pair $< e, w >$, ϕ is true in w with respect to some point of origin and event point that coincide and are included in e. Given the Reichenbachian picture of tenses in section 8.3, this leads us to expect the occurrence of the present tense

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[19]As Lewis (1978) observes, an appropriate semantics for sentences of the form *In the novel, ϕ* requires that the set of worlds relevant to evaluate ϕ be a more restricted set than the set worlds compatible with the novel in the sense just defined. I come back to this point in section 13.

in ϕ,[20] as the present tense is compatible with the requirement that speech time and event time coincide.

Let's see how this works applied to (11).

(11)   In *Moby Dick*, the whale smashes the ship

We extract the set of pairs event time-world $< e, w >$ compatible with the text of *Moby Dick* by considering all ways of fixing the speech time and other contextual features, the event time, and the world of evaluation that make the text as a whole true. Sentence (11) is true iff for any such pair $< e, w >$ "the whale smashes the ship" is true in w at an event point that coincides with the speech point and is included in e. Intuitively, this means that for (11) to be true the whale must smash the ship at any world compatible with the novel at a time included in the time of occurrence of the events of the novel in that world.

9   The formal setting

In this section, I'll set up a formal system in which the analysis of sentences of the form *In the novel, ϕ* described above can be expressed. In the Reichenbachian analysis of tenses described in 8.3, tenses express relations between three temporal parameters: the speech point, the event point, and the reference point. These relations are given by the following schema (where the comma indicates coincidence and the order of the letters R, E, S on the line the precedence relation among these points):

PAST: R,E_ S

PRESENT: R,E,S

FUTURE: S_ R,E

The reference point, according to Reichenbach, coincides with the event point in these tenses, but it's distinct from both the event point and the speech point in the case of the past perfect. Here, I won't discuss the reason why Reichenbach introduces this third temporal parameter, the reference point. I will only point out that, if one accepts this analysis of tenses, the indeterminacy we observed for the event point and the speech point in fictional texts also extends to the reference point, since this point, in the case of the simple tenses, coincides with the event point.

Formally, one way of capturing the idea that tenses express relations among temporal parameters is to assume that sentences of the translation language are evaluated not with respect to a single time interval, but with respect to several

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[20] . . . under the representation in which the present tense is in the scope of the modifier *In the novel*. This qualification is necessary, since, as we saw, there is also a reading of paratextual sentences that allows for the past tense. I come back to this issue in section 11.

time intervals. Dowty (1982) has proposed a semantics for tenses in which sentences are evaluated relative to a time interval pair, corresponding intuitively to Reichenbach's reference point and speech point.[21] In Dowty's system, there is no parameter among the indices of evaluation that corresponds to the event point. Since the informal semantics for sentences of the form *In the novel, ϕ* described in the previous section involves a reference to the event time, I'll assume that sentences are evaluated relative to three time intervals r, s, e, corresponding, respectively, to Reichenbach's reference point, speech point and event point.

We also observed that texts of fiction are often undetermined with respect to the reference of temporal and spatial indexicals like *now* and *here*. Following Kaplan,[22] I'll assume that the reference of these indexicals is determined by the context of utterance. In particular, I'll assume that each context c specifies, among other things, the time of the context c_T and the place of the context c_p.[23] Sentences will thus be evaluated in a context, relative to three time intervals, and, of course, a world.

A model M for the translation language will consist of the following ingredients:

- U, a non-empty set, the set of individuals.
- C, a non-empty set, the set of contexts.
- W, a non-empty set, the set of possible worlds.
- T, a non-empty set, the set of time intervals.
- If $c \in C$, c_T is the time of c, c_W is the world of c, c_P is the position of c, c_A is the agent of c.
- F, a function that, for each context c, each interval t and each world w, assigns (i) an individual to the names of the language and (ii) a function from n-tuples of individuals to truth-values to the predicates of the language.

The function F tells us, for each context, world and interval, which properties hold of the individuals in that context, at that world, during that interval. For example, $F_c(run)(w)(t)$ tells us which individuals run in c at w during t. I will use the notation

$$[\![\alpha]\!]_{M,g,c}(w)(e)(r)(s)$$

as short for the denotation of α in the context c relative to the world w at the intervals e, r, s (in the model M, relative to the assignment g). Thus relativized,

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[21]However, see Dowty's paper for a discussion of the differences between his approach and Reichenbach's.

[22]See also Kaplan (1979).

[23]With Kaplan, I'll also assume that every context c specifies an agent c_A, the denotation of the indexical *I* in c, and a world c_W, the actual world from the point of view of c.

the denotations of the expressions of the language are defined as follows. For every model M, assignment g, context c, intervals e, r, s, and world w:

1. If P is a predicate, $[\![P]\!]_{M,g,c}(w)(e)(r)(s) = F_c(P)(w)(e)$
2. If a is a name, $[\![a]\!]_{M,g,c}(w)(e)(r)(s) = F_c(a)(w)(e)$
3. If v is a variable, $[\![v]\!]_{M,g,c}(w)(e)(r)(s) = g(v)$
4. If $\tau_1, ..., \tau_n$ are terms (variables or names) and P^n is a predicate,
$[\![P^n(\tau_1, ..., \tau_n)]\!]_{M,g,c}(w)(e)(r)(s) = [\![P^n]\!]_{M,g,c}(w)(e)(r)(s)$
$([\![\tau_1]\!]_{M,g,c}(w)(e)(r)(s), ..., [\![\tau_n]\!]_{M,g,c}(w)(e)(r)(s))$
5. $[\![\text{PRES } \varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $[\![\varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$, $r = e$, $r \subseteq s$
6. $[\![\text{PAST } \varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $[\![\varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$, $r = e$, $r < s$
7. $[\![\text{FUT } \varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $[\![\varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$, $r = e$, $s < r$
8. $[\![\text{NOW } \varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $[\![\varphi]\!]_{M,g,c}(w)(e)(r)(c_T) = 1$
9. $[\![I]\!]_{M,g,c}(w)(e)(r)(s) = c_A$
10. $[\![\text{HERE}]\!]_{M,g,c}(w)(e)(r)(s) = c_P$
11. $[\![\varphi \wedge \psi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $\exists e', e'' \subseteq e$ such that $e = e' \cup e''$ and $\exists r', r'' \subseteq r$ such that $r = r' \cup r''$, and $[\![\varphi]\!]_{M,g,c}(w)(e')(r')(s) = 1$ and $[\![\psi]\!]_{M,g,c}(w)(e'')(r'')(s) = 1$
12. $[\![\varphi_1. ... .\varphi_n]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $[\![\varphi_1 \wedge ... \wedge \varphi_n]\!]_{M,g,c}(w)(e)(r)(s) = 1$

Truth in a context is defined thus:

> A sentence φ is true in a context c in a model M iff for every assignment g, $\exists e, r$ such that $[\![\varphi]\!]_{M,g,c}(c_W)(e)(r)(c_T) = 1$

Comments to the formal system

- The intervals e, r, s, as we saw, are meant to represent Reichenbach's event point, reference point and speech point. In the case of expressions not containing tense operators or indexicals, the denotation only depends on the event point.
- The tense operators PRES, PAST, FUT require that the sentences to which they apply be true at the event point, that the reference point coincide with the event point, and that the reference point is included in, precede and follow, respectively, the speech point. The semantic rule for the tense operator PRES departs from the original Reichenbachian schema in allowing the reference point to be included in, rather than simply coincide with, the speech point. This move is forced on us by the rule for conjunction adopted in 11. As the event points of the conjuncts, according to this rule, may be distinct, a conjunction of present

tense sentences should not require that the event point of each conjunct coincide with the speech point. Inclusion, on the other hand, allows for the event points of the conjuncts to be distinct when the conjuncts are in the presents tense.

- According to the definition of truth in a context, sentence (1) is true in a context c iff there is an event time e and a reference time r such that these conditions are met: (i) the speaker of c comes back from the City in the world of c at the event time e, (ii) e coincides with the reference time r, (iii) r is about three o' clock, and (iv) r precedes the time of c.

  (1)   I returned from the City about three o'clock

- Intuitively, given a context of utterance c, sentence (14) is true in c iff (15) is true in c. Namely, (14)-(15) are true in a context of utterance iff he is talking at the time of utterance.

  (14)   He is talking

  (15)   He is talking now

  This intuition is captured in the formal system, since by the definition of truth in a context and clauses 5, 8, it follows that (14) is true in a context c iff (15) is true in c iff he is talking at c_T, which, for intuitive purposes, we may think of as the time of utterance.[24] Yet, according to 5 and 8, the denotation of the constant *NOW* in a context c is fixed on the time of the context c_T, while present tense requires the sentence to be true at the speech point s. Why do we need both the speech point s and the time of the context c_T? Can't we dispense with s and let tenses locate event and reference point directly with respect to the time of the context? One reason not to do that was given for the present tense in Prior (1968).[25] Sentence (16) allows a reading in which John finds a unicorn that is talking at the future time when it is found, while sentence (17) says that the unicorn is talking at the time of utterance of (17).

  (16)   John will find a unicorn that is talking

  (17)   John will find a unicorn that is talking now

  These examples show that the parameter corresponding to the speech time in the interpretation of tenses (what we called the point of origin in our informal discussion of the role of tenses in works of fiction), unlike the time of the context referred to by *now*, may be shifted. Keeping the index for the speech time distinct from the time of the context allows for

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[24]But see Kaplan for why this intuitive characterization of c_T is not quite accurate.

[25]See Kamp (1971) for further discussion of the interaction of *now* and tenses.

this possibility.[26] I'll come back to a further consequence of this choice in section 12.

- Conditions 11-12 determine the truth-conditions of a text in a context. Condition 11 incorporates in the semantics with three temporal coordinates the truth-conditions for conjunction proposed in van Benthem (1983). Condition 12 amounts to claiming that a text is true in a context iff the conjunction of the sentences of the text is true in the same context.[27]

10   Truth in fiction (first version)

We are now ready to import our intuitive proposal concerning the truth-conditions of sentences of the form *In the novel,* ϕ in the formal system we sketched. The idea was that *In the novel,* ϕ is true iff, for any pair event time-world $< e, w >$ compatible with the text as a whole, ϕ is true in w with respect to a point of origin and event point that coincide and are included in e. The set of all pairs $< e, w >$ compatible with the text as a whole was obtained by considering every way of simultaneously fixing the speech point, the event point and the context of utterance such that there is a world at which all the sentences of the text are true relative to these coordinates.

For the purposes of this discussion, I'll assume that NPs like *The novel* or *The Thirty-Nine Steps* denote texts, where a text is a sequence of sentences. Given a model M, an assignment g, a context c and a 4-tuple $\langle w, e, r, s \rangle$, let $\Re$ be a term that denotes a text of fiction at these coordinates. For short, I will use $T_{M,c,g,w,e,r,s}$ as the text denoted by $\Re$ at M, c, g, w, e, r, s. The truth-conditions of sentences of the form *in* $\Re, \varphi$ are given in 13:

13. $[\![in\ \Re,\ \varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $\forall c', e', r'$ such that
$[\![T_{M,g,c,w,e,r,s}]\!]_{M,g,c'}(c'_W)(e')(r')(c'_T) = 1,\ \exists t \subseteq e'$ such that
$[\![\varphi]\!]_{M,g,c}(c'_W)(t)(t)(t) = 1$

11   Predictions about tense

The truth-conditions in 13 account for the use of the simple present in sentence (11):

(11)   In *Moby Dick*, the whale smashes the ship

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[26]For a general discussion of why shiftable contextual features need to appear as separate coordinates, see Lewis (1980). As for the problem posed by (16)-(17), the semantics adopted here for *NOW* yields the desired interpretation of (17), since it requires that we keep the time of talking fixed on the time of utterance. In the case of (16), on the other hand, we may get the intended reading if we allow an interpretation of future tense in which this tense shifts the index corresponding to the speech point. For a way of achieving this result, see Dowty (1982).

[27]I'm assuming that concatenated sentences in a text are represented by means of the period in the translation language. A condition similar to 12 was proposed for texts in Heim (1982).

Indeed, these truth-conditions lead us to expect that, while representation (11')
is semantically well-formed, representation (18) is not, as the intensional mod-
ifier *In Moby Dick* requires the formula in its scope to be evaluated at a speech
time that coincides with the event time, a condition that contradicts the require-
ment imposed by the past tense in (18).

(11') In *Moby Dick*, PRES(the whale smash the ship)

(18) In *Moby Dick*, PAST(the whale smash the ship)

We have seen, however, that past tense is allowed in sentences of the form *In
the novel, ϕ* when it locates in the past the text itself rather than the events
described by the text. Indeed, this was the case for (10):

(10) In Patrick O'Brian's first novel, Jack Aubrey was a post captain, in
his new novel, he is a commodore, in the next novel he will be an
admiral.

How do we account for this use of tenses in paratextual sentences? If what is
located in the past is the text, this suggests that tense has the intensional mod-
ifier *In the novel* in its scope. Suppose indeed that the logical representation of
(19) is given in (19'):

(19) In Patrick O'Brian's first novel, Jack Aubrey was a post captain

(19') PAST ∃x[first novel by O'Brian(x) ∧ ∀y(first novel by
O'Brian(y) → y = x) ∧ in(x)(Jack Aubrey be a post captain)]

According to this representation, sentence (19) is true if uttered now just in
case at a time preceding now there is a novel which is O'Brian's first and for
any pair event time-world $< e, w >$ compatible with the text as a whole Jack
Aubrey is a post captain in w with respect to a speech point and event point
that coincide and are included in e. In other words, representation (19') has the
desired effect of locating in the past O'Brian's first novel while requiring that
Jack Aubrey be a post captain at all worlds and times that are compatible with
the text.

12   A further prediction: life at 221B Baker Street

The proposed semantics for *In the novel, ϕ*, paired with the semantic rules for
tense and *now* in section 9, makes a prediction that is worth noticing about the
interaction of tense and temporal indexicals in sentences of this form. F. Velt-
man (p.c.) has observed the following contrast. Imagine that a speaker utters
sentence (20) now, while pointing at 221B Baker Street in London:

(20) In *The Adventures of Sherlock Holmes*, Holmes lives here

In this case, the speaker has said something true. Imagine now that another speaker utters sentence (21) in the same circumstances:

(21)   In *The Adventures of Sherlock Holmes*, Holmes lives here now

In this case, what the speaker said is false. By the semantics adopted here, this contrast in the truth-value is expected. Here's why.

By rules 8 and 10, indexicals like *now* and *here* uttered in a context c are directly anchored, respectively, to the time c_T and the place c_P of c. On the other hand, by rule 5 the present tense expresses a relation between the temporal parameters s, r and e. The speech time s is a parameter distinct from c_T, although it may be identified with c_T in absence of operators like *In the novel* that shift the speech time. Rule 13 requires that to evaluate a sentence of the form "In *The Adventures of Sherlock Holmes, ϕ*" in a context c we evaluate ϕ in c at every speech time, event time and reference time that coincide and that are included in an event time compatible with the text. This means that, while the present tense "In *The Adventures of Sherlock Holmes, ϕ*" indicates that the event described by ϕ takes place at a time that is included in a time of occurrence compatible with the text of *The Adventures of Sherlock Holmes*, an occurrence of *now* in ϕ will anchor the occurrence of this event to the time of the original context of utterance of the paratextual sentence. It follows that sentence (20), uttered now while pointing at 221B Baker Street, means that in the worlds and event times compatible with Doyle's stories, Holmes lives at 221B Baker Street (which is true). Sentence (21), uttered in the same circumstances, says instead that, in the relevant worlds, the time at which Holmes lives at 221B Baker Street coincides with the time of utterance of (21) (which is false).

13   Narration and implicit content

13.1   The event of narration

One problem with the current version of the truth-conditions for paratextual sentences in 10 is that they do not handle sentences like (22) correctly:

(22)   In *The Thirty-Nine Steps*, Hannay is speaking after his return from the City

In *The Thirty-Nine Steps*, Hannay is using the past tense in reporting his return from the City, thus (22) is intuitively true. Yet, the proposed truth-conditions do not make this prediction, since in *The Thirty-Nine Steps* the event of narration is left implicit, there is no sentence in the text that says that Hannay is telling the story at a later time, though this is clearly part of the implicit content of the text.

Notice, moreover, that an adequate semantics for modifiers like *In the novel* must also deal with the fact that, although the novel may leave undetermined the time of narration, sentences like (23) (which uses a definite to refer to this time) seem to be perfectly natural, and also true:

(23)   In *The Thirty-Nine Steps*, the time at which Hannay is speaking is after his return from the City

13.2   Holmes and London's train stations

The existence of the event of narration is not the only kind of implicit truth that our proposal fails to capture. The truth-conditions in 13 assume that the worlds relevant to evaluate the sentences in the scope of the modifier *In the novel* are simply the worlds that make the text as a whole true. This insures that a sentence of the form *In the novel, ϕ* will be true if ϕ is true in all the worlds compatible with what is explicitly asserted in the text. But, as Lewis (1978) observed, there is much that we are inclined to regard as true in a text of fiction although the text doesn't explicitly say it. In the stories by A. C. Doyle, Holmes lives in Baker Street. In London, Baker Street is closer to Paddington Station than to Waterloo Station. Thus, intuitively, sentence (24) is true:

(24)   In *The Adventures of Sherlock Holmes*, Holmes lives closer to Paddington Station than to Waterloo Station.

But in Doyle's stories there is no mention of the position of Baker Street with respect to Paddington Station and Waterloo Station. It follows that, if we consider all the worlds in which the text as a whole is true, in some of these worlds Baker Street will be closer to Waterloo Station and (24) is thus incorrectly predicted to be false by the truth-conditions in 13.

14   Truth in fiction (second version)

The problems we raised in the previous section shows that the set of worlds relevant to evaluate the sentences in the scope of modifiers like *In the novel* must be restricted further to capture the truths that are implicit in texts of fiction. In particular, in order to make sure that (24) is true, it is necessary to exclude from the set of worlds relevant to evaluate (25) all the worlds that introduce variations of London's actual topography that are not required by the text:

(25)   Holmes lives closer to Paddington Station than to Waterloo Station.

Lewis suggests that this result may be achieved by considering, among the worlds that realize the fiction, only those that are maximally similar to the real world.[28]

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[28]Lewis also considers, and ultimately seems to favor, a different solution in which the worlds of the fiction must be maximally similar not the real world, but to the belief worlds of the community where the fiction originates. I won't consider this alternative here.

In order to deal with the problems posed by (22)-(23), on the other hand, we need to make sure that the worlds relevant to evaluate the sentences in the scope of the intensional modifier are worlds in which the story is told. This will allow us to refer to the event of narration, as seems to be required by the truth of (22)-(23). Both types of restrictions, the one having to do with similarity and the one involving the telling of the story, may be incorporated in this way in our definition. Given an interval i' and an interval i', let $i \sqcup i'$ be the interval whose initial and final subintervals are, respectively, i and i'. The revised truth-conditions are stated thus:[29]

13a. $[\![in \; \Re, \; \varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $\forall c', e', r'$ such that conditions (i) $-$ (iii) are met, $\exists t$ such that $t \subseteq e' \sqcup c'_T$ and
$[\![\varphi]\!]_{M,g,c}(c'_W)(t)(t)(t) = 1$:
(i) $[\![T_{M,g, \; c,w,e,r,s}]\!]_{M,g,c'}(c'_W)(e')(r')(c'_T) = 1$
(ii) $T_{M,g,c,w,e,r,s}$ is uttered at c'_T in c'_W
(iii) c'_W is maximally similar to w *among the worlds meeting* $(i) - (ii)$.

According to these truth-conditions, sentence (22) is true iff for every way of fixing the context of the text and the time at which the events of the text occur such that conditions (i)-(iii) are met, the event of Hannay's telling the story is after his return from the City. As in the text the sentence that reports the return from the City is in the past tense, it follows that any context and event time that meet conditions (i)-(iii) will locate the time of the return from the City before the time of utterance, thus predicting that (22) is true.

(22) In *The Thirty-Nine Steps*, Hannay is speaking after his return from the City

(23) In *The Thirty-Nine Steps*, the time at which Hannay is speaking is after his return from the City

The truth of (23) is predicted for the same reason. Notice that, according to the truth-conditions in 13a, the implied uniqueness of the utterance time in (23) is consistent with the fact that the novel leaves the time of speech undetermined. Indeed, all is required by definition 13a is that the time of utterance be unique

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[29]The restriction to worlds in which the story is told is also required by the truth-conditions proposed by Lewis. More precisely, in one version of Lewis's proposal, the worlds that are relevant to evaluate ϕ are those maximally similar to the real world in which the story is told as known fact rather than fiction. The differences between this formulation and the one I adopt have to do with matters unrelated to the tense of *In the novel, ϕ*, so I won't discuss them here. If needed, we could incorporate condition (a) in place of (i)-(ii) in 13a:

(a) $T_{M,g,c,w,e,r,s}$ is uttered as known fact rather than fiction at c'_T in c'_W

This would amount to adopting Lewis's formulation in our system.

for every way of fixing the context of the story. As each context c determines a unique utterance time c_T, this requirement is met.

15 Some open problems

Before turning to the issue of how the analysis presented here can be extended to paratextual sentences based on texts of non fiction, I'll describe some open issues for my account of tense in sentences of the form *In the novel, ϕ*. The following problem was pointed out to me by M. Stokhof (p.c.). Suppose that, while I'm sitting comfortably in my chair reading one of the Sherlock Holmes stories, you ask: "what is Holmes doing?". I could answer this question truthfully by saying:

(26) He is playing the violin. A murder took place and he is thinking about the evidence. He will soon discover the murderer.

As this answer is true, it must be about what happens in the story. This means that (26) must be understood as being in the scope of a modifier like *in the story*. The problem is that the sentence *A murder took place* in (26) is in the past tense and the occurrence of the past tense in this case doesn't seem to place the text of the story in the past. This occurrence of the past tense indicates instead that, in the story, the murder takes place before the event of playing the violin, namely it indicates pastness relative to the time of occurrence of the violin playing by Holmes. Similarly, the future tense in *He will soon discover the murderer* does not locate the text of the story in the future, but indicates that the event of discovering the murderer is in the future with respect to the event of playing the violin. These occurrences of non present tenses in (26) are not accounted for by anything we said so far.

Notice that (26) is consistent with the claim that present and future tenses in a sentence of the form *in the fiction, ϕ* cannot locate the event described by ϕ in the past or in the future with respect to the time of utterance of the paratextual sentence. Indeed, as the events narrated in the Sherlock Holmes stories are imagined take place in the Victorian age, the future tense in (26) is not meant to locate the discovery of the murderer in the future with respect to now. Yet, the tenses in (26) are not meant to reflect the temporal location of the text either, but the relative position of the murder, the violin playing and the discovery of the murderer from a temporal point of view, and this needs to be explained.

One way to account for the interpretation of (26) is to allow past and future tenses to shift the speech time of the sentence to which they apply. In this case, the rules for these tenses should allow them to shift the speech time s to a time that coincides with the event time of a previous sentence in the discourse. For (26), this would mean that past and future tenses may express pastness and futurity with respect to a speech time that coincides with the event time of

the first sentence in (26). However, it is not clear to me that, for the purpose of accounting for (26), we need to modify the interpretation of tenses in this way. Notice that one way to convey the intended meaning of (26) would be the following:

(27)   In the part of the text that I am reading now, Holmes is playing the violin. In the part that I read before, a murder took place and he is thinking about the evidence. In the part that I'll read, he will soon discover the murderer.

This suggests that (26), at some underlying level, may still be a case in which past and future tenses have scope over the intensional modifiers (a representation corresponding to (27) for (26) might be obtained *via* accommodation). What would make (26) different from the other occurrences of past and future tenses in paratextual sentences is that in (26) these tenses do not temporally temporally locate the text with respect to the time of utterance of the paratextual sentence, but temporally locate the times at which different parts of the text are read with respect to the time of utterance of the paratextual sentence. The fact that (26) indicates that the murder and the discovery of the murderer occur, respectively, before and after the violin playing would be an indirect consequence in this case of the fact that the order which I read the different parts of the novel reflects the temporal order of these events in the story.

While assuming that (26) has the same representation as (27) would allow us to account for the interpretation of (26) without modifying the interpretation of the simple tenses, notice however that the possibility of shifting the speech time for some tenses in the scope of modifiers like *in the fiction* seems to be required in any case to account for sentences like (28)-(29) pointed out to me by A. Mittwoch:[30]

(28)   In *Hamlet*, the hero kills his uncle. His father's ghost has instructed him to do so.

(29)   In *Hamlet*, the hero kills his uncle. His father's ghost had instructed him to do so.

In particular, the occurrence of the past perfect in (29) seems to take as a speech point the event point of the sentence *the hero kills his uncle*. Here, I won't try to account for these occurrences of complex tenses in paratextual sentences and I'll leave open whether the interpretation of (26) is handled best by letting simple tenses shift the speech time as in the case of complex tenses or is to be accounted for instead by assuming that (26) has the same representation as (27) at some level of discourse interpretation.

[30]In these examples, the modifier "In *Hamlet*" has scope only over the first sentence, but is clearly modifying the whole discourse from a semantic standpoint. Again, one might assume that the relevant semantic representation is obtained *via* accommodation.

16 Truth in the text

In approaching the task of providing truth-conditions for (30), we concentrated on the problems that arise with texts of fiction.

(30) In *The Thirty-Nine Steps*, Hannay returns from the City about three o'clock

This is reflected by the truth-conditions in (13) and by the revised version in (13a), as ℜ in these definitions is a term that denotes a text of fiction. The universal quantification over contexts reflects the fact that for texts of this kind the point of origin of tenses and the reference of indexicals need not be fixed. Consider now sentence (31):

(31) In *Shadow*, Clinton only cares about sex and golf.

From a linguistic standpoint, (31) has the same structure as (30), indeed (31) also uses the present tense to report a past property of the subject. Thus, it seems plausible to assume that the preposition *in* is the same in (31) and (30). The problem is that *Shadow* is no text of fiction, it's a text that is meant to report facts.[31] Are there differences that arise in evaluating (31) and (30) due to the different aims with which *The Thirty-Nine Steps* and *Shadow* are produced, the former as part of a game of make-believe, the latter as an attempt to convey factual information about the U.S. presidency?

It is clear that, although the author of *Shadow* may intend (32) below as true, in evaluating (31) as true we make no commitment to the truth of (32) in the real world:

(32) Clinton only cared about sex and golf

As in the case of (30), when we evaluate (31) we are only interested in what is true *according to the text*. Namely, what counts for evaluating (31) is whether (32) is true in the worlds compatible with the text. Yet, there is an important difference between paratextual sentences concerning texts of fiction and paratextual sentences concerning texts that are meant to report facts. Suppose that *Shadow* contains the following sentence:

(33) Clinton is on trial for sexual harassment.

Although the text may not specify the context of utterance of this sentence, it's clear that, in evaluating an occurrence of (33) in Woodward's book, the

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[31] In the intentions of its author, Bob Woodward, *Shadow* is a factual account of the U.S. presidency from 1974 to the present (see Woodward (1999)). The use of the present tense in (31), by the way, shows that the contrast between (6) and (8) in section 8 should not be be derived from the assumption that past tense, unlike present tense, locates events on the real world time axis. If we substitute the present with the past in (31), the result is as awkward as in (6), although a text like *Shadow* arguably locates the events it describes on the real world time axis.

relevant context is that in which the sentence was written. What is peculiar of written occurrences with respect to spoken ones, is that, barring the case of tape recorders, a sentence that is spoken is heard at the time it is spoken, if heard at all, while a written sentence is usually read at times that are different from the time it was written. This, however, should not obscure the fact that, when a sentence occurs in a book that is meant to report facts, what counts as the context of utterance for the sentence is the context in which the sentence was written. It would not make sense to reject Woodward's account of the U.S. presidency because sentence (33) is false in the present context (as Clinton is no longer on trial).[32] This is true, but irrelevant. The context of utterance of (33), as it occurs in Woodward's book, is the context in which the text was written. And it is in this context that this occurrence of (33) is meant to be evaluated, the way that a spoken utterance of (33), if meant as reporting a fact, would be meant for evaluation in the context in which it is spoken.

The same point can be made, by the way, for contextual coordinates other than the time of utterance. Suppose we find sentence (34) in a newspaper's article by our correspondent from Kossovo:

(34)   I've been here for three days now

Clearly, the context of utterance of this occurrence of (34) is the context in which (34) was written. What determines whether (34) is true or not is whether the person who wrote it had been in the place where he wrote for three days before he wrote it.

Things are different for sentences that occur in texts of fiction. In this case, although the text was written in a particular context (by a certain agent at a particular time and place), this context is not meant as the context of utterance of the text. Indeed, in section 8, we saw that the use of tenses, of temporal and spatial indexicals in a text of fiction need not be consistent with the context in which the text was written. In a text of fiction, tenses may present as past an event that is future with respect to the time of writing, the narrator may speak about the here and now without referring to the time and the place of the writing. And an occurrence of "I" in *The Thirty-Nine Steps* need not refer to the writer ("I" in (1) refers to Hannay, not to Buchan).

These differences between texts of fictions and texts of non fiction are reflected in the semantics of paratextual sentences. We have seen that, in evaluating paratextual sentences based on texts that aim at reporting facts, as in the case of paratextual sentences based on texts of fiction, we make no commitment to the truth at the real world of the sentence in the scope of the modifier *In the text*. In both cases, what counts for evaluating *In the text,* ϕ is only whether ϕ is true or not in the worlds of the text. Yet, paratextual sentences based on

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[32]Recall that truth in a context means truth with respect to the time and world of the context.

factual texts differ from paratextual sentences based on texts of fiction with respect to other contextual coordinates. Suppose that the text of *Shadow* contains sentence (35) below. In this case, (36) is true:

(35)   I learnt about Clinton's affair a year ago in a bar close to here.

(36)   In *Shadow*, Woodward learns about Clinton's affair a year before writing the book in a bar close to the place of writing.

On the other hand, an occurrence of (1) in *The Thirty-Nine Steps* does not support the truth of (37):

(1)   I returned from the City about three o'clock

(37)   In *The Thirty-Nine Steps*, Buchan returns from the City at three some time before writing the book

If these observations are correct, when a text is meant to report facts, in evaluating a sentence of the form *In the text, ϕ*, we should only consider those contexts that make the text true in which the time, place and agent are those of the context in which the text was written.

How can we capture this difference between texts of fiction and factual texts in stating the truth-conditions of paratextual sentences? While we want the semantics of sentences of the form *In the text, ϕ* to make correct predictions about (36) and (37), it is desirable to have a single interpretation for the preposition *in* in sentences of this form, whether or not the text is a text of fiction. We can accomplish this task by assuming that, in the truth-conditions of *In the text, ϕ* in 13a, the restrictor of the universal quantifier is a set that is determined according to the following principles. If the original context of evaluation c is one in which the text is fictional, the restrictions in 13a apply; if the text aims at describing facts in c, the universal quantifier is restricted further to contexts in which the time, place and agent are those of the context in which the text was written.

Formally, this amounts to stating the truth-conditions of *In the text, ϕ* in this way. Let $\Re$ be a term that denotes a text. Then,

13b. $[\![in\ \Re,\ \varphi]\!]_{M,g,c}(w)(e)(r)(s) = 1$ iff $\forall c', e', r' \in D$, $\exists t$ such that $t \subseteq e' \sqcup c'_T$ and $[\![\varphi]\!]_{M,g,c}(c'_W)(t)(t)(t) = 1$

The set D is determined according to these principles:

$P_{fiction}$ If $T_{M,g,c,w,e,r,s}$ is a work of fiction in c, $D = \lambda c', e', r'$ such that
   (i) $[\![T_{M,g,c,w,e,r,s}]\!]_{M,g,c'}(c'_W)(e')(r')(c'_T) = 1$,
   (ii) $T_{M,g,c,w,e,r,s}$ is uttered at c'_T in c'_W, and
   (iii) c'_W is maximally similar to w among the worlds meeting (i) − (ii).

P_{fact} If $T_{M,g,c,w,e,r,s}$ aims at reporting facts in c, $D = \lambda c', e', r'$ such that
(i) $[\![T_{M,g,c,w,e,r,s}]\!]_{M,g,c}(c'_W)(e')(r')(c'_T) = 1$, where c'_T, c'_P, c'_A
are respectively, the time, place and agent of the writing of
$T_{M,g,c,w,e,r,s}$,
(ii) $T_{M,g,c,w,e,r,s}$ is uttered at c'_T in c'_W, and
(iii) c'_W is maximally similar to w among the worlds meeting (i) −
(ii).

17   Conclusions

I have argued that understanding tenses in fiction does not amount to assigning any special meanings to them. In texts of fiction, as in texts that are meant to report facts, the meanings of tenses are described by this rule: given a point of origin, past, present and future tenses locate the event described by the sentence to which they apply in the past, present, and future, respectively, relative to this point of origin. The choice of the point of origin, however, is regulated differently for these text types. For texts that are meant to report facts, the context in which the text was written provides the coordinates to evaluate the text, in particular the point of origin for evaluating the text is given by the time of writing. For texts of fiction, on the other hand, the point of origin of tenses is either fixed in the text or else, as it usually happens, not fixed at all. This difference is not surprising, in view of the different aims for which texts of these types are produced. Texts of fictions, unlike factual texts, do not try to convey information about the world, it hardly matters whether they are true or false, thus the context of evaluation may be left undetermined.

Sentences of the form *In the text α, ϕ* convey factual information, whether α is a text of fiction or not. To evaluate these sentences, we need to find out which contexts and event times "realize" the text (the contexts and event times in the set D in 13b). The truth of "In the text, ϕ" depends on ϕ's being true in the worlds of these contexts with respect to a point of origin and an event point that coincide. This last condition accounts for the use of the present tense in sentences in the scope of the modifier *In the text*. Finding out which contexts and event times "realize" a text involves evaluating the text relative to alternative points of origin in the case of texts of fiction, as texts of this kind may leave the point of origin undetermined. For texts that are meant to report facts, what counts as the utterance time is the writing time of the text. Accordingly, in evaluating paratextual sentences based on factual texts, we restrict our attention to those contexts in which the time of the context is the time when the text was written.

References

John Almog, John Perry, and Howard K. Wettstein, editors. *Themes from Kaplan.* Oxford University Press, New York, 1989.

Carl Bache. Tense and aspect in fiction. *Journal of literary semantics*, 15(2):82–97, 1986.

Jon Barwise. On the circumstantial relation between meaning and content. *Versus*, 44: 23–39, 1986. Reprinted in U. Eco, M. Santambrogio, and P. Violi (eds.) *Meaning and Mental Representations*, Indiana University Press, Bloomington, 1988.

Monroe C. Beardsley. The metaphorical twist. *Philosophy and Phenomenological Research*, 22:293–307, 1962.

Michael Bennett and Barbara Hall Partee. Toward the logic of tense and aspect in English. Technical report, System Development Corporation, Santa Monica, California, 1972. Also distributed by the Indiana University Linguistics Club.

Andrea Bonomi. *Lo spirito della narrazione*. Bompiani, Milano, 1994.

Andrea Bonomi. Tempo e narrazione. Manuscript, Università di Milano, 1998.

Jonathan L. Cohen and Avishai Margalit. The role of inductive reasoning in the interpretation of metaphor. In Donald Davidson and Gilbert Harman, editors, *Semantics of Natural Language*. D. Reidel Publishing Company, Dordrecht, 1972.

Donald Davidson. What metaphors mean. *Critical Inquiry*, 5:31–48, 1978.

David Dowty. *Word Meaning and Montague Grammar: the Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ*. D. Reidel Publishing Company, Dordrecht, 1979.

David Dowty. Tenses, time adverbs and compositional semantic theory. *Linguistics and Philosophy*, 5:23–33, 1982.

Peter A. French, Theodore E. Uehling, and Howard K. Wettstein, editors. *Contemporary Perspectives in the Philosophy of Language*. University of Minnesota Press, Minneapolis, 1979.

Peter Green. *Alexander of Macedon, 356-323 B. C.: A Historical Biography*. University of California Press, Berkeley, 1992.

Paul H. Grice. Logic and conversation. In Peter Cole and Jerry L. Morgan, editors, *Syntax and Semantics 3: Speech Acts*, pages 41–58. Academic Press, New York, 1975.

Käte Hamburger. *Die Logik der Dichtung*. Klett, Stuttgart, 1956. English translation by M. Rose: *The Logic of Literature*, Indiana University Press, Bloomington, 1972.

Irene Heim. *The Semantics of Definite and Indefinite Noun Phrases*. PhD thesis, University of Massachusetts, Amherst, 1982. Published in 1989 by Garland, New York.

Hans Kamp. Formal properties of 'now'. *Theoria*, 37:227–273, 1971.

Hans Kamp and Uwe Reyle. *From Discourse to Logic*. Kluwer, Dordrecht, 1993.

David Kaplan. Demonstratives. Manuscript, University of California at Los Angeles, 1977. Published in J. Almog, J. Perry, and H. K. Wettstein (eds.), 1989, pp. 481-563.

David Kaplan. On the logic of demonstratives. In Peter A. French, Theodore E. Uehling, and Howard K. Wettstein, editors, *Contemporary Perspectives in the Philosophy of Language*, pages 401–412. University of Minnesota Press, Minneapolis, 1979.

Graham Katz. States, events and representations. Manuscript, University of Tübingen, 1996.

Wolfgang Klein. *Time in Language*. Routledge, 1994.

Alex Lascarides and Nicholas Asher. Temporal interpretation, discourse relations and common sense entailment. *Linguistics and Philosophy*, 16:437–493, 1993.

David K. Lewis. Truth in fiction. *American Philosophical Quarterly*, 15:37–46, 1978. Reprinted in D. K. Lewis, *Philosophical Papers*, Vol. 1, Oxford University Press, 1983.

David K. Lewis. Index, context, and content. In S. Kanger and S. Öhman, editors, *Philosophy and Grammar*, pages 79–100. Reidel, 1980.

David K. Lewis. Postscript to "Truth in fiction". In *Philosophical Papers*, volume 1, pages 276–280. Oxford University Press, Oxford, 1983.

Terence Parsons. *Nonexistent Objects*. Yale University Press, New Haven and London, 1980.

Arthur N. Prior. 'Now'. *Nous*, 2:101–119, 1968.

Hans Reichenbach. *Elements of Symbolic Logic*. Macmillan, London, New York, 1947.

Tanya Reinhart. Principles of gestalt perception in the temporal organization of narrative texts. *Linguistics*, 22:779–809, 1984.

Paul Ricoeur. *Temps et Récit*, volume 2. Editions de Seuil, Paris, 1984. English Translation by K. McLaughlin and D. Pellauer, *Time and Narrative* Volume 2, The University of Chicago Press, Chicago, 1985.

Jeff Ross. *The Semantics of Media*. Kluwer Academic Publishers, Dordrecht, 1997.

John R. Searle. The logical status of fictional discourse. *New Literary History*, 6, 1974-75. Reprinted in P. A. French, T. E. Uehling, and H. K. Wettstein, 1979.

John R. Searle. Metaphor. In Andrew Ortony, editor, *Metaphor and Thought*. Cambridge University Press, Cambridge, 1978.

Meir Sternberg. *Expositional Modes and Temporal Ordering in Fiction*. John Hopkins University Press, Baltimore, 1978.

Johan van Benthem. *The Logic of Time*. Reidel, Dordrecht, 1983.

Zeno Vendler. Verbs and times. *Philosophical Review*, 56:143–160, 1957. Also published in Z. Vendler, 1967.

Zeno Vendler. *Linguistics in Philosophy*. Cornell University Press, Ithaca, 1967.

Harald Weinrich. *Tempus: Besprochene und Erzählte Welt*. Kohlhammer, Stuttgart, 1964.

Bob Woodward. *Shadow: Five Presidents and the Legacy of Watergate*. Simon and Schuster, 1999.