Approaches to Meaning

Current Research in the Semantics/Pragmatics Interface

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Approaches to Meaning

Composition, Values, and Interpretation

Edited by

Daniel Gutzmann Jan Köpping Cécile Meier



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For Ede or Thomas

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Acknowledgements

This volume collects original research papers in natural language semantics, which we and the authors dedicate to Ede Zimmermann on the occasion of his 6oth birthday. We think that the quality of the papers, the profile of the authors involved, and the variety of topics the authors have chosen for their papers alone is proof of the influence Ede has had and continues to have on the landscape of formal semantics and the respect he gets from colleagues and friends worldwide.

Working with or, in our case, for Ede is very inspiring and it leads to surprising insights into the semantics and pragmatics of natural languages. It is not just that you can ask him about even the most complicated things while taking a walk to the next supermarket (to buy many cookies or cakes), which he promptly answers in a precise and helpful way. (Sometimes you have to think about his answers for three weeks just to figure out how helpful they are.) It is not just that he is always ready to talk through your (linguistic) problems, even if you are telling him about them for the *n*-th time. And it is not just that he is one of the most competent, insightful and fastest thinking semanticists possible. On top of all of this, you easily get acquainted with lesser known semantic or pragmatic facts about German. (1) You can start an entirely new conversation with Ja, or Genau or even Ja, genau ('Yes', 'Indeed' or 'Yes, indeed'). (Ede does this all the time; especially on the phone.) (2) You can end a conversation in the very same way. (3) There are contexts, where working with Ede means 'watching random conference pictures online together' or 'exchanging jokes and puns for much more time than it is normally allowed by social norms', or the conjunction of these two paraphrases. (4) Preparing for a talk held in the traditional Thursday colloquium by a specific guest in some cases means 'trying to find the best recipe for gin tonic possible'. (5) You can plan possible discourses beforehand by instructing your interlocutor to remember certain things in case you ask him something like Didn't I talk about this and that with you? And therefore, (6) you learn about even devious ambiguities in allegedly 'harmless' sentences as Working with or for Ede is very inspiring and it leads to surprising insights into the semantics and pragmatics of natural languages. Finally, a rarely observed property of Ede is that he serves as truth-maker for both readings of this sentence. Thank you, Ede!

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Frankfurt, May 2014

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On the Meaning of Fictional Texts*

Matthias Bauer and Sigrid Beck

1 Introduction

Various disciplines have investigated meanings of texts, and accordingly different things can be meant by 'the meaning of a text'. We focus in this paper on fictional texts, on notions of meaning from linguistics and from literary studies, and on the answers offered under (1).

- (1) What do we mean by 'the meaning of a text'?
 - (i) the meaning determined by the grammar 'grammatical meaning'
 - (ii) the meaning that a reader/hearer may derive 'subjective meaning'

Let us consider an example to illustrate this:

(2) from: Aesop's Fables (trans. George Fyler Townsend)

The Crow and the Pitcher

A Crow perishing with thirst saw a pitcher, and hoping to find water, flew to it with delight. When he reached it, he discovered to his grief that it contained so little water that he could not possibly get at it. He tried everything he could think of to reach the water, but all his efforts were in vain. At last he collected as many stones as he could carry and dropped them one by one with his beak into the pitcher, until he brought the water within his reach and thus saved his life.—Necessity is the mother of invention.

A formal semanticist charged with the task of interpreting this text would begin a compositional calculation resulting in (very roughly) the proposition in (3) for the first sentence. S/he would proceed in a similar way throughout the text. The grammatical meaning of the text, as a first approximation, is the conjunction of the propositions thus calculated.

^{*} We thank Kai von Fintel and three anonymous reviewers for feedback on an earlier version, as well as the editors of this volume.

(3) λw . $\exists x[x \text{ is a crow}_w \& x \text{ perishes}_w \text{ with thirst } \& \exists y[y \text{ is a pitcher}_w \& x \text{ flies}_w \text{ to } y]]$

A literary scholar (or an attentive reader) might offer (4) as the interpretation of the text in (2). The subjective interpretation of the text is something that is not literally claimed, but that can in some sense be derived from the text nonetheless.

(4) One can accomplish amazing things by being creative and persistent.

Our paper is about how the subjective meaning is related to the grammatical meaning. Specifically, we ask at what point in linguistic theory there is the opportunity or indeed the requirement to step from one to the other. The answer we offer is that the formal pragmatics of fictional texts is the relevant step. In contrast to most everyday utterances, newspaper articles and the like, fictional texts are not asserted in the normal sense. That is, it is not claimed that the real world is among the worlds described by the text. For example, it would be inappropriate to reply to (2) with (5). Someone who responds with (5) mistakes the fable for an ornithological report, which is not intended when a fictional text is uttered.

(5) This is completely wrong. Crows never carry stones in their beaks.

But if fictional texts are not asserted, how do we make a connection to the real world? It is clear that we do so. (6), for example, is an appropriate response to (2); we have an intuition that fictional texts can, in some sense, express truth. The relevance of a fictional text comes about because there is some kind of relation to reality, after all.

(6) This is completely wrong. Persistence gets you nowhere at all.

We propose that there is a pragmatic operation which is not familiar assertion, but which does make a connection to the real world. The pragmatic interpretation of our example according to this operation is sketched in (7). Our analysis makes the pragmatic meaning a kind of conditional, in which the worlds described by the text are related to the real world. This is presented in the shape of an operator in (8). The relation to the real world is what makes the text relevant. This relation, R in (8), is not overtly expressed. It has to be derived, i.e. g(R) is to be determined on the basis of the specific text. Values for R reflect subjective interpretation ("the text is about ..."). The result of applying

the pragmatic operator is the subjective meaning of the text—its interpretive impact.

- (7) If everything the text *T* says is true, then one should be inventive and persistent.
- (8) **[FictionalAssert**_R**]** $^{g,w}(T_{\langle s,t\rangle}) = 1$ iff $T \subseteq \{w' : g(R)(w)(w')\}$ Worlds in which everything the text says is the case, are worlds that stand in relation R to the actual world.

From the perspective of literary scholarship, our paper seeks to provide a new answer to an old problem, i.e. explaining the difference between fictional and non-fictional texts. By combining literary studies with intensional semantics and taking recourse to possible world theory we choose a new approach. Our starting point is the paradoxical fact that fictional texts do not claim to make any assertions about reality but are still relevant to real people, i.e. have a meaning for the reader. How is this possible? Frequently an answer is sought by pointing out that fictional texts contain a lot that is not fictional, e.g. references to really existing persons, places, institutions, ideas etc. E.g. Ryan (1991) develops a set of accessibility relations between the actual world and the text world which is based on the claim that the more properties they share the closer they are. This is quite different from our focus on the meaning of fictional texts for readers. To us, it does not seem it does not seem satisfactory that the relevance of fictional texts should entirely depend on what is not fictional about them. This would mean that the most relevant fictional texts are the least fictional ones. which is counter-intuitive. What makes a fictional text relevant to a reader is that it establishes a similarity to the real (actual) world. This similarity may be based on references to really existing items but may be based on a number of other features as well. In any case it implies a difference from the actual world, and the particular meaning of fictional texts is derived from this difference.

There is, of course, a tremendous amount of work on the subjective meaning of fictional texts in literary studies and related disciplines. These disciplines discuss what subjective interpretations people arrive at, and what factors play a role for the result. They do not discuss the formal pragmatic connection between grammatical meaning and subjective meaning—i.e. they do not discuss how the interpretive impact is derived from the truth conditional semantics. Our paper offers one simple step as the answer to this how-question. Similarly, there is a lot of work on conditionals, including counterfactuals and various other particular problems in intensional semantics. All the linguistic work is about the compositional interpretation of natural language sentences.

It is not about the pragmatic interpretation of fictional texts. Note that our proposal does not concern semantic composition within sentences or texts. Our conditional arises in pragmatics. Thus we think that our paper is the first to offer an idea of how formal semantic interpretation and literary interpretation of fictional texts are related in terms of linguistic means. We think that this is useful because it connects formal semantics with other interpretive disciplines. It broadens the horizon of the working semanticist and offers him/her a basis for where subjective interpretation takes its starting point. Our project in this paper is an interdisciplinary one, and we hope it might be of interest to literary theorists and semanticists alike.

Our paper is structured as follows: Section 2 provides some simple general background in possible world semantics. We include this section primarily for non-semanticists who might be interested in our project; the reader well-versed in intensional semantics may skip it. Section 3 provides some general background in literary theory and the discussion of the meaning of fictional texts. This section is intended primarily for linguists and it prepares for our proposal in section 4. There, our own analysis is developed. We postpone a detailed discussion of issues related to our topic until after our proposal has been made. In section 5, we situate our analysis in the wider landscape of research that discusses meaning in fiction. Section 6 concludes the paper.

2 Background in Intensional Semantics

This section lays out, for the non-semanticist, what we mean by the grammatical meaning of a text. In (9) we provide what the semanticist might answer when asked for her/his notion of meaning:

(9) Meanings are the range of the interpretation function $[\cdot]$. $[\cdot]: L \to \bigcup D_{\sigma}$ (σ a semantic type)

(where L is the set of all expressions in language L, D_{σ} is the denotation domain of type σ and $\bigcup D_{\sigma}$ is the union of all denotation domains—that is the set of objects that are assigned to some linguistic expression in the language as its interpretation.)

 $\bigcup D_{\sigma}$ are the 'meanings' that can be expressed in L.

The function [] has to assign to each expression in the language under investigation its meaning. It represents the interpretive component of the grammar

and derives what we call grammatical meaning. Theories of how this happens are developed e.g. in Chierchia & McConnell-Ginet (2000) and Heim & Kratzer (1998). Let us elaborate a little by giving an example:

- (10) My crab apple is blossoming.
- (11) a. referential NPs: individuals (type $\langle e \rangle$) $[my\ crab\ apple] = SB'sCA$ (supposing that the second author is the speaker)
 - b. sentences: propositions (type $\langle s, t \rangle$) [My crab apple is blossoming] = {w : in w SB's crab apple blossoms}

Sentence meanings are propositions and propositions are sets of possible worlds. We follow the standard ontology in semantics (Lewis 1986): There are infinitely many possible worlds and each of them specifies completely a way the world might have been. One of them is the way things are—the actual world @. The other worlds are "possible" in the sense that they represent logical possibility. This does not entail that they are "possible" in the sense of being candidates for the actual world.

As we said, sentences denote sets of possible worlds. If I inform you of (12a), you will kick out as candidates for the actual world all those worlds in which my crab apple tree is not blossoming, (12b).

(12) a. [My crab apple is blossoming] = {w : in w SB's crab apple blossoms}b. @∈ {w : in w SB's crab apple blossoms}

You do so because I <u>assert</u> (12a) (or rather, <u>if</u> I assert (12a)). Thus (12b) represents a pragmatic step that is standardly taken when we interpret utterances, read a newspaper or other non-fiction. We represent standard assertion by an operator Assert in the style of Krifka (1995). Its semantics can be stated, for our present purposes, as simply as in (13). For Krifka, (13) is one of a set of

¹ This Assert operator is very crude. For one thing, a proper pragmatic operator should consider that utterances are made in a given context, and that there are requirements on what can be asserted in a context (Krifka 1995; Stalnaker 1972, among others). For another, we have followed Krifka here in representing the operator as if it were a lexical item with a semantics given in the lexicon. It might, instead, be an interpretive strategy not represented anywhere in the structure. This issue in the semantics/pragmatics interface is under lively debate at present (see e.g. Chierchia & Fox & Spector 2012). We think that the operator as stated suffices for present purposes, and that presenting it as if it were an element in the structure is simple and clear. Neither is to be taken as a serious analytical claim.

pragmatic operators including for instance a semantically stronger operator for scalar assertions and one for emphatic assertions. We limit our attention to (13) here. We call the application of such an operator the pragmatic step.

(13) Assert
$$(p)(w) = 1$$
 iff $w \in p$

It is well-known that language can also talk about possible worlds that are not the actual world. Consider (14):

- (14) If I had scored that goal, my team would have won.
- (15) a. [I had scored that goal] = {w : SB scored that goal in w}b. [my team would have won] = {w : SB's team win in w}
- (16) "If I had scored that goal, my team would have won" is true iff $\{w : SB \text{ scored that goal in } w\} \subseteq \{w : SB' \text{s team win in } w\}$

"worlds in which I scored that goal are worlds in which my team won."

The example is a counterfactual conditional. The actual world @ is not in the set of worlds in which I scored that goal. The other worlds exist as logical possibilities. The things in those worlds are also 'real' in that they exist in other possible worlds. They don't exist in the actual world. The semantics given for the example in (16) is simplified, and cannot be quite right. Not all worlds in which I score that goal are worlds in which we win. For example, the other team might also have scored more goals and still have won. Or the rules of the game might have been different, and my scoring that goal would have been insufficient for us to win. And so on. What is meant by an assertion of (14) is this: If I had scored that goal, and nothing else relevant had been different from the actual world, then we would have won. What is relevant depends on the context. Semantics thus has to leave some room for contextual information, as in (17) (we follow here the most standard analysis of conditionals as explained e.g. in Kratzer (1991); see section 4 for more discussion):

(17) [If I had scored that goal, my team would have won] $^{g,w} = \{w' : \{w : \text{SB scored that goal in } w \& wRw'\} \subseteq \{w : \text{SB's team win in } w\}$

"If I had scored that goal, my team would have won" is true in @ iff $\{w : SB \text{ scored that goal in } w \& wR@\} \subseteq \{w : SB'\text{s team win in } w\}$ where wR@ iff w is maximally similar to @ with respect to the relevant facts

The relation R is a relation between possible worlds, an accessibility relation. R(@) is the set of worlds that are accessible from the actual world in the relevant way. In this example, worlds are accessible that share facts with the actual world about soccer and about our game (a circumstantial accessibility relation). The accessibility relation *R* is what makes a conditional statement relevant (von Fintel & Heim 2011). It is not very interesting that hypothetical worlds in which I score are worlds in which we win. But what I'm saying with (17) is that things would have to have been only a tiny little bit different from what they actually were for us to have won. So I'm telling you something about actual things, too. Below are two other run-of-the-mill examples of accessibility relations. These accessibility relations (introduced by modal verbs in the examples) are fairly standardised; that is, the grammar or linguistic convention narrows down possibilities for R. Covert relations between possible worlds will be relevant for our proposal regarding fictional texts in section 4.

- (18) a. Murderers must go to prison.
 - b. Worlds in which what the actual laws provide is the case are worlds in which murderers go to prison.
 - c. wR@ iff what the laws in @ provide holds in w(deontic)
- (19) a. Sebastian must be guilty.
 - b. Worlds in which what I believe to be true is the case are worlds in which Sebastian is guilty.
 - c. wR@ iff what I believe to be true in @ is the case in w (epistemic)

Finally, a word on the interpretation of texts, as opposed to single sentences. We will simplify greatly in this respect and concretely suppose (20).

S1. S2. S3. ... (20) Text:

> $[T] = [S1] \cap [S2] \cap [S3]...$ Text meaning:

> > Set of worlds in which S1 is true and S2 is true and S3 is true ...

= set of worlds in which all sentences in the text are true

This view ignores many aspects of textual interpretation, for example information that is needed for interpretation in addition to information the grammar provides: information we might call pragmatic or contextual. For example, in order to interpret (10) in the way indicated you need to know (from the utterance situation or the preceding text—both subsumed under the context) that the speaker is SB, the second author. We will take it for granted that this can

be modelled in a principled fashion. It is included in what we think of as the linguistically determined meaning of an expression (a word, a sentence, a text). At any rate, we assume that the linguistic mechanisms involved in interpreting sentences and texts in the end provide a set of possible worlds, namely those worlds in which everything the text says is the case.

What was sketched in this section, then, is our notion of (i):

(i) the meaning determined by the grammar 'grammatical meaning'

3 Background in Literary Studies

In literary studies, there is no agreement on the way in which literary texts may establish their meaning. Many readers of literary texts share a *subjective* understanding of meaning: a literary text means what it means for me. But does it make sense then to try and elicit the meaning of a poem etc.?² Or does such a subjective understanding mean that it means just anything?

We can delimit the problem by reflecting on the ontological status of literary texts in a more narrow sense, i.e. works of fiction (which includes poems and plays). A most radical view is expressed by a well-known tag from Archibald MacLeish's didactic poem "Ars Poetica" (1926): "A poem should not mean / But be" (Ferguson Salter & Stallworthy 2005: 1381). In this view, literature is completely unlike utterances in everyday life. One might even say that this view holds that literature does not talk about things. It is rather meant to *be* a thing to be talked about. We realize at once that this leads to a paradox, for literary texts consist of language and without meaning they would not be what they are. Even so-called nonsense poetry can only be recognized as poetry because quite a few meanings are established, and certain expectations of meaning are thwarted. And if meanings are thus established, the poem must, at least to some extent, adhere to the interpretive rules of grammar, even though it need not do so throughout.

If we thus cannot do without grammatical meaning in literature, however, this does not mean that it refers to the actual world @. When I read the first sentence of Melville's novel *Moby Dick*, "Call me Ishmael," I know that I must imagine a speaker who is (or wishes) to be called Ishmael and that I must not start calling Herman Melville Ishmael. Accordingly, let us formulate a first hypothesis:

² Poems, for the purposes of this paper, are regarded as fictional texts.

(H1) Fictional literature both evokes and thwarts the expectation that the things to which linguistic expressions refer belong to the actual world. It thus makes us aware of problems of meaning.

To illustrate, consider Shakespeare's Sonnet 18:

(21) William Shakespeare, Sonnet 18:

Shall I compare thee to a summer's day?
Thou art more lovely and more temperate:
Rough winds do shake the darling buds of May,
And summer's lease hath all too short a date;
Sometime too hot the eye of heaven shines,
And often is his gold complexion dimmed;
And every fair from fair sometime declines,
By chance or nature's changing course untrimmed;
But thy eternal summer shall not fade,
Nor lose possession of that fair thou ow'st;
Nor shall Death brag thou wand'rest in his shade,
When in eternal lines to time thou grow'st:
So long as men can breathe or eyes can see,
So long lives this and this gives life to thee.

When we read the question "Shall I compare thee to a summer's day?" we cannot and should not try and identify the addressee as long as we contextually realize that the question is part of a work of fiction.³ The only reference that can be identified in our world is "this" in the last line of the poem: "So long lives this, and this gives life to thee". "This" is the utterance, i.e. the poem itself. Thus we start thinking about the utterance and not just about the individuals mentioned etc. Accordingly, it seems characteristic of literary texts to make us wonder about (their) meaning. We do so for the very reason that they do not refer to identifiable objects in our sphere of life. The assertive step (13) does not take place.

³ Conversely, the fact that many readers and critics have tried to identify the addressee indicates that they do not accept the sonnet as a work of fiction. If it is fictional, the addressee may be coincidentally like an actual person but the poem does not depend on this identification. This is what Davies (2007: 44), following Currie (1990), calls the "counterfactual independence" requirement" of fiction.—Oscar Wilde famously made fun of the factual dependence of the young man of Shakespeare's sonnets in "The Portrait of Mr. W.H." (Wilde 2003).

As a result, we may ask about the 'deeper' or figurative meaning of a text.⁴ This may be local, e.g. the metaphorical meaning of an expression, or it may refer to the text as a whole (e.g. in a riddle). Thus in the Shakespeare sonnet we may start wondering what the "shade" of death is or what it means when the speaker says of his addressee that "in eternal lines to time thou grow'st". In real life, I could start resolving this uncertainty by finding out more about this shade or by asking the speaker what he means by "to time". In a literary text, this is impossible (and not just because the author is dead: even the answer given by an author does not delimit the range of readings of a fictional text as long as it does not become part of it). In any case, I, the reader/hearer, am asked to establish the meaning of a literary text. We may thus formulate a second hypothesis:

(H2) In a literary text the meaning "of" something (a word, a sentence, the text as a whole) is always a meaning "for" someone (the reader) because, as a rule, it does not refer to an identifiable reality.

At this point, we may ask how possible world semantics may help in the analysis of fiction. Several literary scholars (e.g. Doležel 1998) have found the concept of possible worlds useful for describing the nature of fiction since it liberates the theory of fiction from the restraint of mimesis in the sense of texts representing what is already there in the actual world. Others (e.g. Zipfel 2001) reject the concept because "fictional worlds might be impossible"; e.g. a "fictional character can be born on two contradicting dates" (Ronen 1996: 24–25). Apart from the fact that fictional examples of this kind are quite rare, however, even in fantasy literature (Ronen does not give any), this does not contradict the principle. As long as the sentence describing such a fact makes sense, I must assume that there may be a world in which I may be born on two different dates. Moreover, even in fiction there must be a sufficient number of

⁴ Davies (2007: 15) speaks of "the higher-order thematic content of the piece, the 'point' of the piece that we expect to uncover in our reading".

⁵ In fact, this goes back to the old notion that literary mimesis or 'imitation' does not consist in reduplicating the actual world but in creating another one. Cf. Sidney (1595/2002: 85), who speaks of "another nature".

⁶ For describing fiction as denoting sets of possible worlds, it is irrelevant whether we "try to explicate truth in a story in terms of possible worlds in which a given set of beliefs is true" or whether "we take, as the basis of our analysis, sets of beliefs themselves" (Davies (2007: 64), referring to Lewis and Currie). It is not belief worlds but the meaning of the text that constitutes the reality of fiction, i.e. provides the relevant set of worlds.

logically acceptable facts in order to make us accept a seemingly illogical one as part of the fictional worlds. Thus we embrace the notion that fictional texts talk about possible worlds. The notion of the poet speaking about (logically) possible worlds was first pointed out by Aristotle in his *Poetics* (section 9, trans. S.H. Butcher):

(22) It is, moreover, evident from what has been said, that it is not the function of the poet to relate what has happened, but what may happen—what is possible according to the law of probability or necessity. [...] The true difference is that one relates what has happened, the other what may happen. Poetry, therefore, is a more philosophical and a higher thing than history: for poetry tends to express the universal, history the particular.

Aristotle's distinction is quite clear: a historian's work is defined by its reference to the real world, to actual events etc.⁷ A poet's work is defined *ex negativo* by not being restricted to the real world, i.e. by inventing things. Because literature is thus 'free,' it can address more universal issues.

Later theories have refined Aristotle's distinction. Most notable is Sir Philip Sidney's differentiating literature from historiography on the one hand and philosophy on the other. History is bound to reality; philosophy is bound to concepts, ideas and general principles. Literature, being free, combines the two:

(23) Now doth the peerless poet perform both: for whatsoever the philosopher saith should be done, he giveth a perfect picture of it in some one by whom he presupposeth it was done, so as he coupleth the general notion with the particular example.

SIDNEY 1595/2002: 90

In Sidney, this has a moralistic note (literature is to improve us), but we can abstract from his statement a more general notion of literary meaning, forming a third hypothesis:

(H₃) Literary texts may have a generally applicable meaning because they do not and need not refer to a specific reality. The general meaning, however,

⁷ Of course historians, as has been pointed out by White (2010) and others, actually cannot completely grasp "what has happened" but frequently make up things, due to their bias etc. But this is an epistemological and a psychological problem which does not invalidate the distinction. "History" in Aristotle stands for the class of texts that claim and must strive to refer to the real world; "Poetry" (i.e. literature that is 'made') does not and need not do so.

is arrived at by statements which look as if they refer to the real world in a specific way. For only thus do they establish a similarity to the real world which makes them relevant to readers.

Thus a connection between the fictional worlds and the real world is to be made. If literary/fictional texts had no connection to the real world, they would have no relevance.

4 Our Proposal

In subsection 4.1. we propose a pragmatic step that is intended to capture the hypotheses from section 3. We explain and discuss this step further in subsection 4.2. Subsection 4.3. provides further illustrating examples.

4.1 The Pragmatic Step in Fiction

Let us make (H₃) more precise in the sense of possible world semantics. We said that a fictional text describes a set of possible worlds

(24) Text:
$$T = S1. S2. S3....$$
 grammatical meaning: $[S1] \cap [S2] \cap [S3]... = \{w: \text{in } w \mid T \text{ is true}\}$

that does not claim to include the actual world:

(25) It is not claimed that
$$@\in \{w : \text{in } w \ \llbracket T \rrbracket \text{ is true}\}$$

It is therefore implicated that the actual world is not one of the worlds described by the text:

(25') Implicature:
$$\emptyset \notin \{w : \text{in } w | T | \text{ is true} \}$$

This is in contrast to normal utterances and to non-fictional texts (newspapers, financial reports etc.), or examples like my (SB's) claim (26). (I may be lying (and so might a newspaper or a financial report). But I can only try to lie because (26b), derived by applying the Assert operator, is a convention.)

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(26) a. [My crab apple is blossoming] = {w : in w SB's crab apple blossoms}b. @∈ {w : in w SB's crab apple blossoms}
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What about statements that do not seem to be about the actual world? What is their relation to @? Let us reformulate (H_3) in the light of this intensional semantic theory.

(H₃')A fictional text will be related to the actual world. Otherwise it would not be relevant. But it is not determined by the grammar or by linguistic convention what the relation to the real world is.

We suggest that the pragmatic step in the interpretation of a fictional text T is not derived by Assert, but as in (27) instead:

(27) $\{w: [T] \text{ is true in } w\} \subseteq \{w: wR@\}$ "Worlds in which everything is the case that T says, are all worlds which stand in relation R to @." (where R is to be determined)

What exactly *R* is will tell us how to relate the text to our reality. This is what we called above the meaning for somebody, and what we alluded to in the introduction as (ii):

(ii) the meaning that a reader/hearer may derive 'subjective meaning'

(H3') says that a hearer may derive a meaning by relating the worlds described in the text to the actual world. Since the relation is not determined by a rule system like the grammar, there is some room for variation.

The meaning in (27) is derived as a result of applying a pragmatic operation FictionalAssert. Like the Assert operator, we conveniently represent this as if it were an element in the structure. Its semantics is given in (28). This, we suggest, is the pragmatic step when something that we know is fiction is uttered.

(28) [FictionalAssert_R]^{g,w}($T_{\langle s,t\rangle}$) = 1 iff $T \subseteq \{w': g(R)(w)(w')\}$ Worlds in which everything the text says is the case, are worlds that stand in relation R to the actual world.

The next subsection discusses our proposal in more detail.

4.2 Discussion

First, let us reconsider the example from the introduction for the purpose of illustrating our proposal.

(29) from: Aesop's Fables (trans. George Fyler Townsend)

The Crow and the Pitcher

A Crow perishing with thirst saw a pitcher, and hoping to find water, flew to it with delight. When he reached it, he discovered to his grief that it contained so little water that he could not possibly get at it. He tried everything he could think of to reach the water, but all his efforts were in vain. At last he collected as many stones as he could carry and dropped them one by one with his beak into the pitcher, until he brought the water within his reach and thus saved his life.—Necessity is the mother of invention.

It is quite obvious that this is not a description of the life of birds, i.e. the fact that $@\notin \{w: \text{in } w \ [\![T]\!] \text{ is true}\}$ should be indisputable. Still this very fact establishes the relevance of the story to the human reader. The bird behaves like the reader should behave. At the same time, it is not irrelevant that the protagonist is a bird. If a being that we perceive as inferior has the resources to help itself in a situation of need, surely even stupid I (the reader of the fable) will have them. Thus "R" can be fairly clearly isolated in the reassuring message of the story.

(30) wR@ iff w is exactly like @ except the counterpart of the crow c in w is the human reader h in @ and what is desirable for h in @ in terms of ingenuity and persistence is the case for c in w

We offer the paraphrases below to approximate the conditional semantics that (28) derives as the subjective meaning of the text, according to this accessibility relation.

- (31) The worlds of *T* are exactly like @ except that the crow stands for me and I behave as I should.
- (32) If everything the text says is the case, then people should be creative and persistent.

Even though the relation to the real world has to be established by the reader, who accordingly derives the 'subjective' meaning of the story, in some cases (such as this one) the "meaning for somebody" is predictable. The 'management' of more or less predictable accessibility relations enables authors to produce an effect.

Our proposal can also explain in what way hearers or readers have intuitions about the truth of fictional texts. As we observed in the introduction, a response like (33) to the fable is clearly inappropriate. Someone who reacts like that fails to grasp that the text is fiction. The response in (34) on the other hand is appropriate. Even though the worlds described by the text by way of its grammatical meaning do not <u>include</u> the real world, there is a transparent subjective meaning according to which the text does make a claim about the actual world. (34) appropriately responds to this, the subjective meaning.

- (33) a. #This is completely wrong. Crows never carry stones in their beaks.b. #That's true. Male crows sometimes carry stones.
- (34) a. ok: This is completely wrong. Persistence gets you nowhere at all.b. ok: That's true. You can come up with surprisingly creative solutions if you really have to.

Next, let us examine the pragmatic meaning derived in more detail. Our proposal sticks to the standard analysis of conditionals from Kratzer's work as sketched in section 2. In contrast to familiar conditionals like (14) above, our proposal places the covert relation between possible worlds not in the antecedent, but in the consequent of the conditional meaning. Here is our intuition behind this possibly surprising aspect: Our intuition is that a fictional text is relevant by way of an inference from the text: "If what the text says is the case, then ...". In the fable with the crow, the crow in the fable should be related to properties of the reader:

(35) According to T, I should be as persistent as the crow.

The idea that an inference is drawn from the text is modeled with a conditional, and the standard semantics of conditionals then places the text in the antecedent and the accessibility relation, unexpectedly in view of syntactic conditional sentences, in the consequent. A more detailed version of the example is in (36).

(36) $\forall w [\llbracket T \rrbracket^w \to \text{counterpart}(\text{reader }@, \text{crow }w) \& \forall w' [\text{what is desirable in }@ \text{is the case in }w' \to \text{reader }@ \text{ behaves in }w' \text{ like crow }w \text{ behaves in }w]]$

It would not capture our intuition to place the accessibility relation, more familiarly, in the antecedent of the conditional. This is demonstrated in (37).

- (37) a. $\forall w[R(@, w) \rightarrow [T]^w]$
 - b. All worlds in which I am replaced by the crow and I behave as desired are worlds in which *T* is true.

It does not follow, from me being an admirable crow, that I will get into trouble and almost die of thirst. Let us take for granted, then, that the fictional text plays a role parallel to the antecedent clause of a conditional.

Next, let us ask if, in similarity to ordinary conditional statements like (14), a covert restriction concerning similarity of possible worlds should be part of the truth conditions. We keep as fixed the relation R in (30) in the consequent, and we only consider the covert constraint of maximal similarity to the actual world. In (38), (39) is a version of our formal pragmatic meaning that adds this constraint to the antecedent as usual.

- (38) $\forall w [[T]^w \& w \text{ is maximally similar to } @ \text{ otherwise } \rightarrow R(@, w)]$
- (39) ∀w[[T]]^w & w is maximally similar to @ otherwise → counterpart(reader @, crow w) & ∀w'[what is desirable in @ is the case in w' → reader @ behaves in w' like crow w behaves in w]]
 "All worlds in which T is true and which are otherwise maximally similar to the real world are worlds in which counterpart(reader @, crow w) and reader @ behaves as desirable"

Adding the restriction results in a weaker statement, and this seems to be a good thing: not absolutely all worlds in which the fable is true are worlds in which the reader is replaced by the crow and behaves as desired. For example, a world in which everything the fable says is true and dislodging so many stones brings about an avalanche that kills the crow, is not a world in which the reader's counterpart behaves as desirable. A final possibility we consider here is that the standard conditional semantics does not optimally capture what we want to say. Below is a semantics that sticks to the idea that fictional assertion amounts to a pragmatic conditional but uses Stalnaker's (1968) semantics of conditionals instead of Kratzer's. This meaning, the Stalnakerian counterpart to the Kratzerian meaning (39), avoids the universal quantification over worlds but is otherwise parallel.

(40) $R(\text{the } w : [T]^w = 1 \& w \text{ is maximally similar to } @, @)$ "the world in which everything is like in the real world except what the text says, stands in relation R to the real world." "the world in which everything is like in the real world except what the

fable says, is such that the crow stands for the reader and the reader behaves as is desirable."

This seems a good paraphrase of what we have in mind. Without, of course, being able to ultimately resolve the matter of the right semantics of conditionals, we propose the versions (39) and (40) as alternative formulations of our idea.

4.3 Further Examples

Let us look at a couple more examples of fictional texts and their pragmatic meanings. A slightly more complex relation is probably at work in (41):

(41) E.E. Cummings from *Is 5* (1926), section "TWO"

"next to of course god America i
love you land of the pilgrims' and so forth oh
say can you see by the dawn's early my
country 'tis of centuries come and go
and are no more what of it we should worry
in every language even deafanddumb
thy sons acclaim your glorious name by gorry
by jingo by gee by gosh by gum
why talk of beauty what could be more beautiful than these heroic happy dead
who rushed like lions to the roaring slaughter
they did not stop to think they died instead
then shall the voice of liberty be mute?"

He spoke. And drank rapidly a glass of water

In this case, it is more difficult to identify the message/effect of the text, even though again the relation to the real world is triggered by a number of identifiable references ("America"). The inverted commas, as well as the last line, indicate that a speaker S is presented in the poem who is not identical to the speaker of the poem. There are further indications strongly suggesting that this inner speaker's attitude is held up to ridicule. But much of the effect of the poem will depend on whether a reader/hearer is able to link certain phrases and clichés used by S to his or her own experience (e.g. watching TV). Readers may derive the relation in (42). The resulting pragmatic meaning (42') amounts to the interpretation that the poem is a parody of nationalist politicians.

- (42) wR@ iff w is like @ except there is/are politician(s) p in @ are the counterpart(s) of the speaker S in w and S is more blatantly contradictory in w than p in @ but otherwise behaves in a parallel way
- $(42') \ \forall w [[T]^w \to w \text{ is exactly like } @ \text{ except there is /are politician(s)} \ p \text{ such that counterpart}(p @, \text{ speaker } w) & \text{ speaker } w \text{ is more blatantly contradictory in } w \text{ than politician } @ \text{ but otherwise behaves in a parallel way}]$

"Worlds in which what the text says is the case, are like the actual world except actual politicians are less obvious but as insincere as the speaker in the text."

A generalization about accessibility relations R for fictional texts seems to be that accessible from @ are worlds similar to @, but with certain clear points of departure.

As a final example we present (43). This poem by Emily Dickinson represents a case in which the relation to the actual world and the pragmatic meaning is not at all obvious.

(43) Emily Dickinson

J315 He fumbles at your Soul As Players at the Keys Before they drop full Music on— He stuns you by degrees— Prepares your brittle Nature 05 For the Ethereal Blow By fainter Hammers—further heard— Then nearer—Then so slow Your Breath has time to straighten— Your Brain—to bubble Cool— 10 Deals—One—imperial—Thunderbolt— That scalps your naked Soul— When Winds take Forests in the Paws— The Universe—is still—

The difficulty for the reader/hearer begins with arriving at a clear notion who "he" and "you" are, e.g. whether the latter is a generic 'you'. The reader may

establish different accessibility factors, i.e. connect what is described in the poem to various experiences of his or her own (but not with just any kind of experience; see Bauer et al. 2010). Accordingly, even though we may be able to describe certain effects, it is much more difficult to delimit this poem to a specific "message". We may not be able to identify R, but we can say things about it. For example, a hearer of J315 is invited to identify with the speaker of the poem, i.e. (44) is plausible:

(44) $wR@ \rightarrow$ the hearer *H* in @ is a counterpart of the speaker *S* in *w*

This is a poem which obviously makes us wonder about the metaphors used and sets us about considering the nature of the experience described. It thus reflects on the specific relationship of generality and specificity/individuality which we have regarded as a hallmark of literary texts. See Bauer et al. (2010) for a detailed interpretation of the poem. This is not our concern here; rather, the poem illustrates what factors may go into determining *R* when one thinks about the subjective interpretation of a complex fictional text. What is literally said in the text is the basis for inferring how I, the reader, am to relate it to myself and the actual world. Texts vary with respect to how easily and specifically this can be determined.

Let us briefly summarise our proposal. We have investigated the pragmatics of fictional texts. Instead of assertional operators familiar from works on formal pragmatics, we argue that their interpretation involves a pragmatic step we call fictional assertion. This step does not entail that the actual world is among the worlds described by the text. Instead, a relation between the actual world and the worlds described by the text has to be inferred. The space between the underdeterminacy of the relation on the one hand, and its foundation on the literal (grammatical) meaning of the text on the other, provides the room for subjective interpretation.

The interest in the connection between grammatical meaning and subjective meaning for the literary scholar lies in the fact that grammatical meaning provides a basis and constraints for possible subjective meanings. This saves us from an 'anything goes' approach to the interpretation of fictional texts. The interest in the same connection for the linguist lies in the fact that we have clear intuitions that fictional texts—in some sense—talk about the real world and can—in some sense—express truth. It is not obvious how such intuitions arise, since by definition fiction is not about the real world and has no claim to truth. Investigating the matter more closely amounts to relating grammatical to subjective meaning.

5 Relating the Proposal to Other Work on Fiction

We are not aware of other work that pursues precisely the plot of our paper, summarized at the end of section 4 above. But there is of course a large body of work on the meaning of fictional texts from literary studies and related sources. And there is some work on fiction from formal semantics/pragmatics. Below, we relate our project to both in turn.

5.1 Semantic Work on Meaning in Fiction and Related Topics

Many readers with a semantics background will be familiar with David Lewis's work on truth in fiction (Lewis 1978), and so we will begin with that. David Lewis's famous paper is concerned with the truth conditions of sentences like (45) or more generally, (46).

- (45) In the Sherlock Holmes stories, a famous detective lives in 22B Baker St.
- (46) According to fiction *F*, *p*. Roughly: all worlds which are compatible with everything in *F* are such that *p* is true.

On a superficial level, Lewis's paper is about sentences that talk about fiction. An intensional context is created by the matrix predicate "in the ... stories" or the like. A fiction operator (46) is introduced that derives the truth conditions of sentences such as (45). Under this perspective, Lewis's project has little to do with our paper. Our paper is not about talk about fiction. Our fiction operator is not an intensional operator that represents a syntactic embedding context for a linguistically expressed proposition. Rather, it represents a pragmatic step. Kai von Fintel (p.c.) points out to us that a less superficial and more interesting way to look at Lewis's contribution is that it spells out what is true according to a fictional text. Thus it represents a richer and much more sophisticated notion of textual meaning. Recall that we simplified greatly and took [T], the meaning of text T, to be simply the intersection of all propositions expressed in T. Lewis's work can be seen as being about the propositional content of T—perhaps: everything that follows from what is said in *T*. Richer notions of textual meaning are of course quite compatible with our approach. If Lewis provides a better notion of what [T] is, our Fictional Assert operator could still take that as its argument and work in the way outlined above, as long as [T]provides a proposition. Probably we should not strictly speaking call [T] the 'grammatical' meaning anymore, because in addition to mechanisms of the grammar information from inferences etc. enter into it. Even so, the pragmatic

step is built on [T]. Thus, the work of David Lewis and others that follow his general strategy (see e.g. the summary and references in Woodward 2011) can be seen as feeding (semantically: what is [T]?) into our (pragmatic: what does [T] mean for me?) proposal.

Lewis's work, seen in this light, ties up with other projects concerned with the basic propositional content of creative productions, such as Ross's Semantics of Media (1997). This book is also concerned with embedded material. Different from common usage, Ross uses the term "medium" for any object which can be described by prepositions such as *in* and *on*, e.g. a "story, programme, play, film, or dream" (Ross 1997: 4). In particular, he is concerned with what he calls "contensive sentences" such as "Marty built a house on Picadilly in the Monopoly game" (Ross 1997: 4). While we are not concerned with sentences like these, which are about the relationship between what is going on within the "medium" and outside of it, the following statement might show a link to our project: "We can associate with any medium the set of all those worlds which agree with it—those worlds which, for all that the medium represents, might be actual" (Ross 1997: 17). It should be pointed out, however, that Ross's "media" are not identical with fictions (let alone fictional texts), i.e. that the fictional status of "media" is not his concern even though most of them appear to involve fictions.

Also similarly, embedding contexts set the agenda for Fauconnier's mental space theory, which is succinctly summed up by Sanders & Redeker (1996: 293): "Mental space theory is a model designed to account for embeddings and restrictions of validity in language. It is based on the assumption that understanding a text involves the creation of domains or spaces, with embedded spaces entailing a restriction of the validity or factuality of the embedded material". Fauconnier (1985: 17) is concerned with sentences such as "Max believes that in Len's picture, the flowers are yellow" or "In that play, Othello is jealous" (18). Fictional texts thus appear as examples of mental spaces in Fauconnier. The "restriction of the validity or factuality" might at first glance be considered akin to our fiction operator, but we do not regard works of fiction as embedded in that sense. Our point is not that fiction is defined by restrictions of this kind, i.e. being limited to a space included by a "parent space". In our view, a work of fiction comprises a set of possible worlds which is not necessarily included by speaker's reality (as it is in the sentence beginning "Max believes ..."). Mental space theory may become useful to literary studies, however, when concerned with utterances by characters within a work of fiction. In that case, the work of fiction is the parent space which delimits the range of meanings of those utterances. Sanders and Redeker's study of the representation of speech and thought in fiction is a case in point.

5.2 Other Work on Meaning in Fiction

Discussions about the meaning of literary texts tend to locate it in four different places and, as a rule, give priority to one of them: there are (1) text-oriented theories, i.e. the meaning of a work of literature is determined by the meaning of the written or spoken utterance; this primarily refers to its literal/grammatical meaning but may also, for example, include allegorical meaning if there are signals for such a meaning in the text. An example of the validity of this is that frequently authors when confronted with questions about the (possible) meanings of their texts, or parts of their texts, say that they never thought about them but think they are true; (2) author-oriented theories, i.e. the literary work is the expression of an author's intention; accordingly, contradictions, vagueness or ambiguities in the text may be resolved by finding out (from interviews etc.) what the author actually wished to say; (3) context-oriented theories, i.e. the meaning of the work of literature is determined by factors that may not be identified by looking at the text alone; examples are allegorical meanings of a text derived from the historical situation in which it was written (e.g. a satire on a politician) but also intertextual references or medium-/genrespecific features (in some versions, external circumstances entirely determine the meaning of a literary text); (4) reader-oriented theories which claim that a literary text means whatever the reader regards as its meaning; such theories may tend to a higher or lesser degree of subjectivism (a lesser degree means interaction with (1), (2) or (3) or the establishing of "intersubjective" meaning in a community of readers). Of course, various theories combine these locations or regard the meaning of literary texts as the product of their interactions.

Where do we locate our approach in this field?

In the first place, we are concerned with the literary text as falling within the domain of compositional semantics; i.e. we think that the basis of all meanings of such a text is its grammar. In that respect, our theory belongs to (1). Secondly, we are not concerned with literary texts in a wider sense (including essays, non-fictional memoirs etc.) but with fictional texts (including poems, plays etc.). The very fact of their fictionality is our trigger: it allows us to extend the reach of intensional semantics by adding a pragmatic operator, which is a feature of (or applicable to) fictional texts. In other words: fiction as a cultural convention/tradition (or an anthropological constant, whatever) meets a logical option (there are such things as non-assertive utterances). This in turn allows us to describe the meaning of literary (i.e. fictional) texts: the grammatical meaning plus fictionality results in a delimited openness of the meaning, which we have marked by *R*. We have introduced the reader (4) at this point, not because (2) and (3) are irrelevant to this meaning but because

this is where the options opened up by the textual feature "grammar" and the contextual feature "fictionality" are realized. Thus we speak of a "subjective" meaning without claiming that a literary text may mean just about anything.

A precise description of what is going on from a truth-conditional perspective will help literary scholars when analyzing literary texts and their functions/effects. It will, in the first place, make scholars realize where "subjective" meaning sets in and what the features of a text are that allow for its multiple interpretations.

We thus hope to provide a clearer space for "subjective" meaning in literature. In the tradition of aesthetics, subjectivity has most frequently been associated with judgment. Thus it plays a central part in Kant's *Critique of Judgment*, e.g. when he says that the "receptivity of the subject" (Kant 2000: 24) is the basis of all aesthetic judgment. This notion points to the experiential quality of perceiving a work of art, which has been explored with regard to literature by the phenomenological school and others. A common denominator in their discussions (cf. Bleich 1978; Holland 1968; Ingarden 1973; Iser 1974) is the degree to which the reader contributes to the realization of the literary text.

Ray (1984: 54) has plausibly pointed out that in many cases the "concretization" of a text by the reader (roughly equivalent to what we have called the meaning that the reader/hearer may derive from a fictional text or its 'subjective' meaning) consists in its becoming "familiar by virtue of being constituted in previously experienced aspects," which may be a "version of the general mechanism of understanding outlined by hermeneutics: we understand elements by correlating them with a larger context, which in turn must be reassessed, thereby provoking a reconsideration of its elements, and so forth". While the various models of literary meaning as "a personal experience unique to each reading subject" (Ray 1984: 62) may foreground either psychological or cognitive aspects of this process, either emotional or rational responses, and may be interested in establishing an 'intersubjective' meaning shared by readers, we seek to define subjective meaning by setting it off from the meaning determined by the grammar but correlating it with it. The nature of fiction allows and requires us to integrate subjective meaning into a formal semantic representation and thus widens the theoretical scope of formal semantics and pragmatics. Literary scholarship profits from this procedure by enabling us to distinguish between subjective meaning as any kind of personal response to a literary text on the one hand and as a definable pragmatic feature of the text on the other hand.

6 Conclusions

This paper adds a new pragmatic operator to the set of operators discussed in formal semantics and pragmatics to embody the pragmatic step that accompanies an utterance. Our operator can apply to fiction and is repeated in (47).

(47) **[FictionalAssert**_R**]** $g^{,w}(T_{\langle s,t\rangle}) = 1$ iff $T \subseteq \{w' : g(R)(w)(w')\}$ Worlds in which everything the text says is the case, are worlds that stand in relation R to the actual world.

Its purpose is to account for the non-assertive nature of fiction and to capture what its interpretive impact is instead. It offers an answer to the question of how the subjective meaning of a fictional text may be based on its grammatical meaning.

We hope that this approach may offer the basis for much further interdisciplinary work. Research on what consequences readers/hearers draw from a text, and how they are guided in this, can now be seen as investigating the nature of the accessibility relation *R* and how it is identified. The pragmatics of fictional texts can be investigated under the guideline that the text is embedded under the fictional assertion operator. We hope that this will prove useful in future research.

References

Aesop (n.d.): "Fables". Trans. Georg Fyler Townsend. URL: http://www.literature.org/authors/aesop/fables.

Aristotle (n.d.): "Poetics". Trans. S.H. Butcher. URL: http://www.gutenberg.org/files/1974/1974-h.htm.

Bauer, Markus & Matthias Bauer & Sigrid Beck & Carmen Dörge & Burkhard von Eckartsberg & Michaela Meder & Katja Riedel & Janina Zimmermann & Angelika Zirker (2010): "The two coeval come': Emily Dickinson and ambiguity". *Zeitschrift für Literaturwissenschaft und Linguistik* 40.148, 98–124.

Bleich, David (1978): *Subjective Criticism*. Baltimore, MD: The Johns Hopkins University Press.

Chierchia, Gennaro & Danny Fox & Benjamin Spector (2012): "The grammatical view of scalar implicatures and the relationship between semantics and pragmatics". In: Portner, Paul & Claudia Maienborn & Klaus von Heusinger, eds.: Semantics. An International Handbook of Natural Language Meaning. Vol. 3. Berlin: Mouton de Gruyter, 2297–2331.

Chierchia, Gennaro & Sally McConnell-Ginet (2000): *Meaning and Grammar. An Introduction to Semantics*. 2nd ed. Cambridge, MA: MIT Press.

- Cummings, Edward Estlin (1994): *Complete Poems 1904–1962*. Ed. by Firmage, George J. New York: Liveright.
- Currie, Gregory (1990): *The Nature of Fiction*. Cambridge: Cambridge University Press. Davies, David (2007): *Aesthetics and Literature*. London: Continuum.
- Dickinson, Emily (1961): *The Complete Poems*. Ed. by Johnson, Thomas H. New York: Little, Brown, and Company.
- Doležel, Lubomír (1998): *Heterocosmica. Fiction and Possible Worlds*. Baltimore, MD: The Johns Hopkins University Press.
- Fauconnier, Gilles (1985): *Mental Spaces. Aspects of Meaning Construction in Natural Language.* Cambridge, MA: MIT Press.
- Ferguson, Margaret & Mary Jo Salter & Jon Stallworthy, eds. (2005): *The Norton Anthology of Poetry*. 5th ed. New York: Norton.
- von Fintel, Kai & Irene Heim (2011): "Intensional Semantics". Lecture notes. Cambridge, MA: MIT. URL: http://web.mit.edu/fintel/fintel-heim-intensional.pdf.
- Heim, Irene & Angelika Kratzer (1998): Semantics in Generative Grammar. Oxford: Blackwell.
- Holland, Norman F. (1968): *The Dynamics of Literary Response*. Oxford: Oxford University Press.
- Ingarden, Roman (1973): *The Literary Work of Art*. Ed. and trans. by Grabowicz, George C. Evanston: Northwestern University Press.
- Iser, Wolfgang (1974). *The Act of Reading*. Baltimore, MD: The Johns Hopkins University Press.
- Kant, Immanuel (2000): *Critique of the Power of Judgment*. Ed. and trans by Guyer, Paul & David Matthews. Cambridge: Cambridge University Press.
- Kratzer, Angelika (1991): "Modality". In: von Stechow, Arnim & Dieter Wunderlich, eds.: Semantik. Ein internationales Handbuch der zeitgenössischen Forschung. Semantics. An International Handbook of Contemporary Research. Berlin: de Gruyter, 639–650.
- Krifka, Manfred (1995): "The semantics and pragmatics of polarity items". *Linguistic Analysis* 25, 209–257.
- Lewis, David (1978): "Truth in fiction". *American Philosophical Quaterly* 15.1, 37–46.
- Lewis, David (1986): On the Plurality of Worlds. Oxford: Blackwell.
- Ray, William (1984): Literary Meaning. Oxford: Blackwell.
- Ronen, Ruth (1996): "Are fictional world possible?". In: Mihailescu, Calin-Andrej & Walid Hamarneh, eds.: *Fiction Updated. Theories of Fictionality, Narratology, and Poetics*. Toronto: University of Toronto Press, 21–29.
- Ross, Jeff (1997). The Semantics of Media. Dordrecht: Kluwer.
- Ryan, Marie-Laure (1991): "Possible worlds and accessibility relations. A Semantic Typology of Fiction". *Poetics Today* 12.3, 553–576.

- Sanders, José & Gisela Redeker (1996): "Perspective and the representation of speech and thought in narrative discourse". In: Fauconnier, Gilles & Eve Sweetser, eds.: *Spaces, Worlds, and Grammar*. Chicago: University of Chicago Press, 290–317.
- Shakespeare, William (1609/1996): *The Sonnets*. Ed. by Evans, G. Blakemore. Cambridge: Cambridge University Press.
- Sidney, Sir Philip (1595/2002): An Apology for Poetry (or The Defence of Poesy). Ed. by Shepherd, Geoffrey & Robert W. Maslen. 3rd ed. Manchester: Manchester University Press.
- Stalnaker, Robert (1968): "A theory of conditionals". In: Rescher, Nicholas, ed.: *Studies in Logical Theory*. Oxford: Blackwell, 98–112.
- Stalnaker, Robert (1972): "Pragmatics". In: Davidson, Donald & Gilbert Harman, eds.: Semantics of Natural Language. Dordrecht: Reidel, 380–397.
- White, Haydn (2010): *The Fiction of Narrative. Essays on History, Literature, and Theory,* 1957–2007. Baltimore, MD: Johns Hopkins University Press.
- Wilde, Oscar (2003): Complete Short Fiction. Ed. by Small, Ian. London: Penguin.
- Woodward, Richard (2011): "Thruth in fiction". Philosophy Compass 6.3, 158–167.
- Zipfel, Frank (2001): Fiktion, Fiktivität, Fiktionalität. Analysen zur Fiktion in der Literatur und zum Fiktionsbegriff in der Literaturwissenschaft. Berlin: Erich Schmidt Verlag.