

7

Present tense

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7.0 Questions & Answers

- (1) *Why do you think both linguists and philosophers find the present tense interesting?*

Tenses are one of the main devices for encoding time in language. Linguistically they have a special position as they are part of the verb paradigm in many languages of the world and as such obligatory for finite verb forms. But tenses are not only interesting from a purely linguistic perspective. Philosophers' interest in tense goes back at least to Aristotle who discusses in his *De Interpretatione* whether or not sentences about the future have a truth value. Aristotle seems worried that assigning them a truth value implies determinism. This debate, known under the name of *future contingents*, has continued up to our time. While philosophers were originally mainly interested in the future tense, work in semantics has shown in the last decades that the present tense poses many challenges as well, challenges that are interesting for linguists and philosophers alike.

- (2) *What recent developments in linguistics and philosophy do you think are most exciting in thinking about the present tense?*

Crucial for the present tense has been Hans Kamp's (1971) idea of

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double-indexing, which made it possible to capture the *deictic*, or in philosophers' words *indexical*, nature of the present tense: the present tense anchors us to our actual speaking across utterances. Although this seminal idea is still widely employed, it has turned out an enormous challenge to incorporate all the different uses of the present tense that we encounter. Two particularly interesting present tense phenomena are the present tense in complements of indirect speech and attitude reports, and the historical present.

Speech reports (as *John said that Mary is ill*) introduce a second context of speech, the context of the original utterance that is now being reported, in addition to the actual utterance context. The so-called *double access* interpretation of present tenses in complements of such reports in languages like English suggests that the interpretation of these occurrences of the present tense requires appealing to both contexts. One of the greatest challenges in formal semantics has been to provide a clear formulation of the exact role of both time points and incorporate this within a larger semantic theory that also treats speech and attitude reports in a sensible way. Recently, psycholinguistic experiments have identified factors that influence the felicity of the present tense in these contexts. These factors are, however, hard to incorporate in the state-of-the-art accounts in terms of acquaintance relations.

The historical present is the use of a present tense to refer to events and states in the past. Recently, a better understanding of this phenomenon has been sought in the application of bicontextual semantic frameworks, in which indexical expressions are interpreted with respect to two contexts.

- (3) *What do you consider to be the key ingredients in adequately analyzing the present tense?*

We have to acknowledge that the idea that the present tense always and only picks up the actual moment of utterance is too simplistic. Things are much more complicated. Although I believe that semantics has brought us very far in unravelling the complex character of the present tense, recent engaging with the topic has raised the question for me whether a complete answer can be given within this field. Both the data about the present tense in speech and attitude reports and those about the historical present suggest that certain hard-to-formalize factors play a role in our tense choice. A holistic understanding of the present tense would require a discussion about how to connect a semantic component

to these factors. Thus I believe that the most fruitful directions of research for this topic are to be found in collaboration between formal semantics and other fields of language study, such as psycholinguistics, cognitive linguistics, philosophy of language, fiction and mind, literature study and narratology.

- (4) *What do you consider to be the outstanding questions pertaining to the present tense?*

The results from the experiments on tense in speech reports raise the question what kind of account would be able to deal with the observation that tense choice seems to be influenced by certain hard-to-formalize factors. Is compositional semantics still the field where we should try to deal with these observations (for example in terms of acquaintance relations (see Sharvit and Moss' contribution) to times or states as it is traditionally done) or should we rather move to looser pragmatic talk? And in addition we have seen that the use of linguistic experiments almost inevitably leads to gradual outcomes and differences between language users. At the moment our semantic theories are not adequately equipped to deal with these methodological consequences. Should this change?

What is more, in some accounts of the present tense in speech reports, and in many accounts of the historical present, we find the idea of 'non-literal talk'. We *present things as if* two times that are actually different can be conflated (present tense in speech reports), or the other around: as if two times that are materially the same, are different (historical present). A major step forward could be set if we understood this *present as if* better.

7.1 Introduction

Philosophers' interest in tense goes back at least to Aristotle who discusses in his *De Interpretatione* whether or not sentences about the future have a truth value. Aristotle seems worried that assigning them a truth value implies determinism. This debate, known under the name of *future contingents*, continued through the Middle Ages (William of Ockham among many others) and early modern times (with Leibniz as an important contributor) up to our time (e.g. MacFarlane 2003). It is this debate which led the philosopher and logician Arthur Prior around 1960 to the invention of Tense Logic with the aim to analyze the wealth of arguments put forward in the debate (Prior 1955 as his earliest publication on this). Ever since, philosophers have used this modal-logic type of approach of tense and its many successors for clarifying philosophical issues about time. In addition, philosophers came to study the formal properties of such temporal logics as a topic on its own. With the birth of formal semantics from philosophy and linguistics in the late 1960's (see Partee 2011 and her preface to this volume for this historical development), temporal logic also became a framework within which to define the semantics of temporal expressions in natural language.

Tenses are one of the main devices for encoding time in language. Linguistically they have a special position as they are part of the verb paradigm in many languages of the world and thus often obligatory for finite verb forms. While the primary attention of philosophers originally went to the future tense and from a philosophical perspective the present tense seemed to be its easier, less interesting brother, work in (formal) semantics has shown in the last decades that the present tense poses many challenges as well. Crucial for the present tense – the topic of this contribution – has been Hans Kamp's (1971) idea of double-indexing, which made it possible to capture the *deictic*, or in philosophers' words *indexical*, nature of the present tense: the present tense tends to pick up the utterance time even when embedded under past tense matrix verbs. Or in other words, the present tense anchors us to our actual speaking context no matter what. Although this seminal idea is still considered a great insight, it has turned out an enormous challenge to incorporate all the different uses of the present tense that we encounter. In this chapter, I will discuss two particularly challenging present tense phenomena: (i) the present tense in indirect speech report complements, and (ii) the historical present, which are both extremely interesting for semanticists and philosophers alike.

Before I zoom in on these two phenomena, I will first lay out what I'll call the 'simple picture' of the present tense (section 7.2). This picture helps to chart the complications introduced by the two noted phenomena and the directions in which we have to extend our analysis to deal with them (sections 7.3 and 7.4). A worked-out analysis of the present tense in which these directions are incorporated is not provided in this chapter. The reason lies in the outstanding questions, which I will bring together in section 7.5, some of which are of a principled nature. Although I believe that formal semantics has brought us very far in unravelling the complex character of the present tense, recent research has raised the question for me whether the complete answer can be given within this field. This is not because we lack certain formal tools, but as we will see both the data involving the present tense in speech reports and those about the historical present suggest that certain hard-to-formalize factors play a role in our tense choice. To mention a few: the rather vague idea of current relevance, the idea of presenting something *as if* (while the actual situation is different), and the role of narration. A holistic understanding of the present tense would require a discussion about how to connect a formal-semantic component to these factors. Thus I believe that the most fruitful directions of research for this topic are to be found in collaboration between formal semantics and other fields of language study, such as psycholinguistics, cognitive linguistics, philosophy of language, mind and fiction, literature study and narratology.

7.2 Our point of departure: a very simple picture

What do we use the present tense for? Intuitively, the answer is simple: we use the present tense to indicate that something holds or takes place now, as we speak, or more precisely, to indicate that the eventuality (a cover term for events, states, processes and what have you) *e* that we describe holds at the time at which we utter our sentence. I will refer to this as the SIMPLE PICTURE.

So, (5) uttered by me on November 12th 2019 expresses that a state of Corien's happiness holds at that time.

(5) Corien is happy.

The simple picture entails that this also holds when the present tense

is embedded under a past tense matrix clause, as in Ogihara's (1995) famous example:

(6) Mary bought a fish that is alive.

Again, when I utter this sentence on November 12th 2019, the present tense of *is* indicates that the state of the fish being alive holds at that time.

In the Kaplanian framework (Kaplan 1989), the actual utterance time t_c is one parameter of the context of utterance c , next to the speaker a_c and the world $w_c : c = \langle a_c, t_c, w_c \rangle$. Kaplan uses these contexts of utterance to explain the interpretation of indexical or deictic expressions, by contrasting them with expressions whose interpretation can be shifted by linguistic operators (by changing the index, a world-time pair). Applying this framework to the present tense, the SIMPLE PICTURE would entail that the present tense picks up t_c in all circumstances, which seems correct when we look at (5) and (6).

A closer look reveals, however, that reality is more complicated than the SIMPLE PICTURE suggests. In section 7.3 we'll see that sometimes not one but two utterance times seem relevant in licensing a present tense. This is the case for the complements of speech reports in languages like English, as in *John said that Mary is ill*. They interestingly introduce a second context of speech, the context of the original utterance that is now being reported, in addition to the actual utterance context. The name *double access* for the interpretation of the present tense in such reports refers to the fact that it is tempting to think about the interpretation of these occurrences of the present tense as appealing to both contexts. One of the greatest challenges in formal semantics has been to provide a clear formulation of the exact role of both time points and incorporate this within a larger semantic theory that also treats speech reports in a sensible way. This incorporation involves answering questions as what kind of object the meaning of a complement clause should be.

Furthermore, we'll see in section 7.4 that the present tense is not only used for eventualities that hold at the actual utterance time t_c . Sometimes it is used for eventualities that are strictly speaking in the past of t_c , the so-called historical present. An example is Schlenker's (2004) *Fifty eight years ago to this day, on January 22, 1944, just as the Americans are about to invade Europe, the Germans attack Vercors*. It is tempting to think about such examples in terms of *pretense*. The idea then would be that the present tense keeps its normal value of picking up

the utterance time, but the speaker pretends that this time is different from the actual time he is speaking. Obviously, we would need to explain what exactly this means. As we will see the phenomenon of the historical present has led to the introduction of bicontextual semantic frameworks, where indexicals are interpreted with respect to two different kinds of contexts.³

It thus seems that we need to adjust the SIMPLE PICTURE along multiple parameters. I will discuss the issues that come up in passing and then bring them together in the discussion at the end of this chapter.

7.3 Present tense in speech reports

7.3.1 Double access and acquaintance relations to states

Let's take a look at the present tense in the complement clause in (7) with the SIMPLE PICTURE in mind (and assume that I am the one who utters the sentence):

- (7) John said that Mary is in the room.

Two complications arise. First, what would be the eventuality located at the time when I utter this sentence? As shown by Ogihara (1995) and Abusch (1994, 1997), it's not necessarily an actual state of Mary in the room (according to me, the actual speaker). I can utter (7) in situations where I am not committed to Mary being in the room, so there need not be such a state according to me. This becomes clear in the felicity of continuations such as in (8):

- (8) John said that Mary is in the room. But that's not true. The one
that is in the room is Sue. (Ogihara, 1995)

We may try to fix this by saying that it is not required that an actual state of the kind described in the complement clause holds (according to the actual speaker), but only a state of that kind as assumed by the reported attitude holder, in this case John. This would actually be very much in line with the meaning of a report complement clause and need not imply a true adjustment of the SIMPLE PICTURE. But even then, more seems required than this state (that John believes in but that

³ Interestingly, bicontextual frameworks have also been used to analyse the problem of *future contingents* that I started this chapter with (MacFarlane 2003). See also Anand and Toosarvandani (this volume).

need not actually exist) simply to hold at the utterance time of (7). We can see this if we look at (9):

(9) Mary will be in the room.

If this is the sentence that John uttered, I cannot use (7) to report this, even if he made his utterance about a time that would later happen to become (or include) the time when I made my report. In that case the assumed state of Mary being in the room would hold at the actual utterance time, so according to the SIMPLE PICTURE the present tense should be felicitous, but it is not: I cannot use (7) to report (9).⁴

In fact, (7) can only be used if John said (10):⁵

(10) Mary is in the room.

This observation, supplemented with considerations about *de re* vs. *de se* belief in the temporal domain (von Stechow 1995), has led to the conclusion that present tense in speech reports such as (7) can only be used if – formulated in terms of the content of this example – according to John, Mary was in the room at his subjective, psychological now. I will refer to this time, the subjective now of John at the time of his utterance, as the *reported now*.⁶ We can now say that for the present tense in (7) to be felicitous John has to locate the (assumed) eventuality at the reported now.

This, however, does not mean that the only moment of time that counts for felicitous present tense use is John's reported now. We can see that when we compare the present tense in (7) and the past tense in (11).

(11) John said that Mary was in the room.

⁴ This was one of the reasons for Abusch (1994, 1997) to introduce the Upper Limit Constraint. Here, I give Kamp's (2012) version, who calls it the *Principle of Obligatory Marking of Prospective Aspect*, or the *Future Orientation Constraint*, since it is formulated in less technical terms: 'if the content of a speech act is future-oriented, then this future orientation must be marked explicitly in the complement clause to a matrix verb that is used to report that speech act.' In English past tense matrix speech reports *would* is used for this: *John said that Mary would be in the room*.

⁵ Or an equivalent, which is (if we gloss over many complications) a sentence that in that context expresses the same proposition (or maybe something stronger, e.g. 'is sitting on a chair in the room' for (10)).

⁶ It is important to keep in mind that this is not the same as the actual time of the original utterance. We see this clearly in cases where John is mistaken about the time, analogous to the mistaken identity cases as described by Perry (1977) and analyzed as self-descriptions of properties in Lewis (1979a).

Both can be a report of (10), but the embedded present tense in (7) seems to import additional information, an idea that goes back to the 1970's (e.g. Smith 1978). Both present and past tense lead to an inference that according to John, Mary was in the room at the reported now (i.e. the subjective now of John at the time of his utterance). But only the present tense imposes a requirement about the actual utterance time n in addition, which is what we started this section with. This additional requirement has led to the name *double access* (Enç 1987), describing an interpretation of the present tense in (7) that involves reference to two times: the reported now and the actual now t_c .

As a side note, in other languages, so-called non-SOT (non-Sequence-of-Tense) languages, such as Hebrew, Japanese (Ogihara and Sharvit 2012) and Ancient Greek (Bary 2012), the only time that is relevant in licensing the present tense is the reported now. The tense system for speech reports in these languages is quite simple compared to English, but note that it still involves a complication relative to the SIMPLE PICTURE: it is not the actual now that the present tense indicates a temporal relation to, but the reported now.

Returning to English, there seems consensus that these two points, the actual now t_c and the reported now, are relevant in licensing a present tense, but defining what exactly has to hold at the actual utterance time turns out to be quite complicated and subtle. In more informal literature, the role of the actual utterance time has been formulated as 'current relevance' (Costa 1972 and McGilvray 1974): the choice for the present tense indicates that the reported eventuality still has current relevance. In the nineties, Ogihara and Abusch independently of each other tried to make clearer what exactly it is that has to hold at the actual utterance time for the present tense to be felicitous (and how to incorporate this in a formal-semantic theory of tense and speech reports).

Ogihara (1995) considers various contexts for (7) (with the target sentence in bold face and the crucial differences between the three scenarios underlined):

- (12) John and Bill are looking into a room. Sue is in the room.
 John (near-sighted): 'Look! Mary is in the room.'
 Bill: 'What are you talking about? That's Sue, not Mary.'
 a. John: 'I'm sure that's Mary.'
 One minute later, Kent joins them. Sue is still in the room.
 Bill (to Kent): '**John said that Mary is in the room.**
 But that's not true. The one that is in the room is Sue.'

- b. John: ‘Yeah. You’re right. That’s Sue.’
 One minute later, Kent joins them. Sue is still in the room.
 Bill (to Kent): ‘**John said that Mary is in the room.**’
- c. John: ‘I’m sure that’s Mary.’
Sue leaves the room. One minute later, Kent joins them.
 Bill (to Kent): # ‘**John said that Mary is in the room.**’

Discourse (12a) is the full form of what we had already seen in (8). To repeat the finding: on the basis of (12a), Ogihara concludes that speaker’s commitment to the truth of the complement at the actual utterance time is not a prerequisite for the use of a present tense: Mary is not in the room, but still a present tense in the complement is acceptable. Moreover, based on (12b), Ogihara argues that it also doesn’t matter whether the reported speaker (John) has found out the falsity of the complement at some point after his utterance. By the time of the report, John no longer believes that Mary is in the room, but again the present is still acceptable. Comparing (12a) and (12b) (where Sue is still in the room) with (12c) (where Sue has left), Ogihara concludes that if the state that made John think that Mary is in the room still holds at the actual utterance time t_c , then we can use the present tense. Otherwise, we cannot.

Ogihara implements this observation in the following formal-semantic truth conditions for (7): (7) is true iff there exists a state s at the actual utterance time t_c such that John talks at the reported time in the past as if he ascribes to s the property of being a state of Mary’s being in the room (Ogihara, 1995, 205). Note that this state s has to hold at t_c . In (12a) and (12b), but not in (12c), there is such a state still holding, namely Sue’s being in the room. This predicts correctly that (12a) and (12b) are acceptable, in contrast to (12c).

Ogihara thus proposes that (12) is an example of *de re* reports about states: John makes an utterance about a state which happens to hold at the actual utterance time, without this moment (which is in the future for him) playing a role in his mind. Building on Cresswell and von Stechow’s (1982b) analysis of *de re* reports about individuals, Ogihara then formalises such *de re* reports about states in terms of acquaintance relations: (7) is true iff there exists a state s at the utterance time t_c and a suitable acquaintance relation R such that: (i) s is the state to which John bears R in the actual world and time of his utterance; and (ii) John talks at this time as if in all his belief alternatives, s has the property of Mary’s being in the room. In (12a) and (12b) there is such

a state that satisfies these requirements, namely the state of Sue's being in the room, to which John is acquainted via the relation 'the situation that I am observing'.⁷

Focussing on the temporal part: this analysis elegantly captures the idea that although the report in (7) is in some way about the actual utterance time, that time need not have played a role in John's mind. The connection is indirect, namely via the state that John is acquainted with and that happens to include the utterance time. Note that the first complication that we started this section with has also been addressed elegantly: the state (of Mary being in the room or of Sue being in the room) that John takes for a Mary-in-the-room state is what we described earlier as the assumed Mary-in-the-room state.

Note that while we formulated the double access interpretation in terms of two time points, the intuitive picture of Ogihara's analysis is in terms of a state (or interval in Abusch' case) that includes both time points, rather than the two time points on their own. Indeed, the present tense on this picture can still be considered indexical since it picks up the actual utterance time, albeit with more requirements.

Although Ogihara provides a very elegant specification of the current relevance intuition, the key observation that has driven Ogihara's analysis has recently been questioned. This key observation was the following: as long as the cause of the reported speaker's belief (in our case a state which he takes to be a Mary-in-the-room state) is still present at the actual utterance time n , the present tense is felicitous; otherwise it isn't. Klecha (2015) questions this key observation with the example in (13):

- (13) Mary puts a balloon under her shirt. John then observes her in this state, and then says to everyone: 'Mary is pregnant!' Later that day, Mary takes the balloon out from under her shirt and pops it. Bill, aware of everything that happened, says to Mary: '(Earlier today,) John told everyone that you're pregnant.'

In this scenario, the cause of John's belief that Mary is pregnant, i.e. the state of the balloon under her shirt, is absent by the time of Bill's report. Nevertheless, the present tense is acceptable, suggesting that the key observation is empirically inadequate.

⁷ We find very similar insights in Abusch 1994, Abusch 1997 and Heim 1994 (a reformulation of Abusch 1994), with the difference that Abusch uses acquaintance relations to intervals rather than states. Heim reformulates these in terms of time concepts: the meaning of descriptions by which a speaker might represent a time to herself, technically a function from world-time pairs to times.

7.3.2 A more complex picture from experiments

Inspired by Klecha’s example, I have carried out two experiments together with Daniel Altshuler, Kristen Syrett and Peter de Swart to arrive at a better understanding of the factors licensing a felicitous usage of the embedded present tense, aiming to make clear what the data are that a theoretical analysis should account for. These experiments targeted precisely those types of cases of interest to Ogihara and later Klecha, where the target sentence reports a false utterance. In the first experiment the participants were asked to indicate the acceptability of (past or present tense) speech report complements on a five point scale. The second experiment was a forced choice task, where participants had to choose between a past and present tense complements.⁸

Surprisingly, we didn’t find that Ogihara’s key factor, namely whether the cause of the false belief still holds, made a statistical difference. We zoomed in on those cases in which the cause of the belief no longer holds at the utterance time, and, inspired by the contrast between Ogihara’s (12c) and Klecha’s (13), we compared (i) short-term reported properties (e.g. *be in the room*) versus long-term reported properties (e.g. *be pregnant*), and (ii) three possible belief situations:

- A: cases where at the time of the report only the reporter (i.e. the agent of the speech report, the speaker of the target sentence) knows of the falsity of the reported belief (so both the reported speaker and his original audience still entertain this false belief);
- B: cases where both the reporter and the reported speaker know that the reported belief is false but the original audience still believes it;
- C: cases where everyone has come to realize that the reported belief is false.

We found an influence of both factors: (i) For both tasks (i.e. rating and forced choice) short-term reported properties disfavor present tense. For the rating task, sentences with short-term properties were rated significantly lower with embedded present tense than with past tense. In the case of the forced choice task, we found a higher percentage of present tense for long-term properties ($M = 62\%$) in comparison for short-term properties ($M = 22\%$). (ii) We found that belief states of others indeed seem to effect present tense use. In the rating experiment we found that only within condition C (where no one still believes the

⁸ See Bary et al. 2018 for the details of the experiment and the results including the statistics.

content of the reported belief) the present tense was rated significantly lower than the past tense. In the forced choice task we found a stronger preference for present tense in condition A (when only the reporter is aware of the falsity; present tense $M = 50\%$) compared to condition C (when everyone is aware of the falsity; present tense $M = 41\%$).

The results from this experiment thus strongly question the key observation that drove Ogihara's analysis: even if the cause of the reported speaker's belief is no longer present, the present tense can still be felicitous. Although the formal mechanism of acquaintance relations may introduce some wiggle room, it is very hard to see how to account for the results from the experiment. An account in terms of acquaintance relations would have to come up with an alternative state, but what other options are there that would satisfy the truth conditions, i.e. states that John is acquainted with at the reported time, that continue up to and including the utterance time and that John talks about as if this state has the properties as described in the report? The situation may be slightly better for Abusch' analysis that uses acquaintance relations to times rather than states. As for (13), she (p.c.) suggests that the acquaintance relation in (13) could pick out the day in which the time of the reported speech act (rather than the time of the balloon being under Mary's shirt) is included, and since this day still holds at the actual utterance time the present tense is acceptable. While this would allow us to account for (13), the question, then, is why we don't have this flexibility for the infelicitous (12c).

As the experiment suggests, the difference in felicity between (12c) and (13) is influenced by two factors: in (12c) we have a short-term property, in (13) a long-term one (factor (i) above); and in (12c) the original audience no longer believes what they were told, whereas in (13), they still do (at least, that's the most natural interpretation) (factor (ii) above). This result raises the more general issue whether these findings could be dealt with within a purely formal-semantic theory in the first place. Although more research is needed to corroborate the effects of this factor, (ii) is particularly interesting since it means that tracking other people's beliefs affects our choice of grammatical morphemes, even in the case of people who are not participating in the actual conversation. How can we let what the original audience thinks (at the time of the report) play a role in the semantics of speech ascriptions? Wiggling with acquaintance relations doesn't seem the right track for that.

This comes on top of conceptual reasons to doubt whether acquaintance relations are the right track to explain the interpretation of tenses.

Sharvit and Moss (this volume) discuss the general question what may count as an acquaintance relation and observe that if we want to include the way acquaintance relations are used in the temporal domain, no single notion of acquaintance fits all kinds of *de re* ascriptions. Cognitive contact seems too much to ask from relations to times, especially to times in the future of the attitude holder. This means we would need to do away with the causal-informational notion of acquaintance which was at the core of the original application (e.g. Lewis 1979b, Cresswell and von Stechow 1982a). What's more, as Sharvit and Moss show, we don't find temporal analogues of the Orcutt example (Quine 1956) where we clearly see the effect of different acquaintance relations at work. While Sharvit and Moss are determined to account for the temporal domain in terms of acquaintance relations, and accept that therefore they have to stretch what counts as a suitable relation, an alternative and maybe easier move in light of the findings described above seems to be to give up a treatment of the present tense in terms of acquaintance relations.

An alternative, suggested by Bary et al. (2018), is that we go back to the informal idea of *current relevance* from the seventies. The different factors are then various ways in which the proposition expressed by the complement can still be relevant to the conversation the reporter is engaged in. Indeed, if we want to generalize over the various factors, it is hard to come up with a more concrete common core. But admittedly, we would like to see more rigor, if only to distinguish current relevance in this context from that of the present perfect, where this notion is also often alluded to (see e.g. Schaden 2013).

A second suggestion that also does not depend on acquaintance relations and that has a large pragmatic component has been brought forward by Klecha (2018). He proposes that semantically speaking, the use of the embedded present tense leads to ill-formedness when it is embedded under past, requiring pragmatic intervention to be rescued. According to Klecha, a double access interpretation is *non-literal*, a special kind of loose talk. Klecha's key idea is that present-under-past sentences can be felicitously used when "the temporal resolution in the discourse is sufficiently coarse so as to conflate the event time of the attitude verb with speech time; in other words, in discourses where the interlocutors don't care to make the distinction between event and speech time for the purposes of discussing what they're discussing." When the discourse is not sufficiently coarse, pragmatic enrichment via conflation of the actual utterance time and the reported speech act time will not be triggered and infelicity will arise. This conflation between the two times could be

a way to make sense of the factors at play and perhaps even of the idea of current relevance in this domain more in general.⁹

Let's return to the experiments since a few comments are in order on the outcomes in relation to both the methodology used and the theoretical consequences. First, starting with the rating task, note that, when looking at the raw scores and overall, both types of sentences seem to be rated as acceptable: present tense: $M = 3.82$, $SD = 1.43$; past tense: $M = 4.02$, $SD = 1.34$. When we zoom in on the individual conditions, we find that the mean is 3.49 or higher and the medium is 4 or higher for each condition.¹⁰ So even though we have been able to identify factors that influence tense acceptability, they do not have an all-or-nothing effect.¹¹ The acceptability of the present tense seems gradual rather than black or white. This may well be a task effect, at least in part: by presenting acceptability in the task as something that can be 'more or less', participants are encouraged to behave accordingly and also select the non-extreme options.¹² Still, in combination with the preference for the

⁹ This proposal is in some aspects similar to that of Kamp (2012) who takes what he calls 'documenting' cases of embedded present as the paradigms and conceptual origins of the double access phenomenon. In these cases the reported speech act took place in the same conversation as the report and the complement describes the topic of this conversation, as in (i) (from Kamp 2012):

- (i) But you said a moment ago that Mary is in Paris right now.

On Kamp's assumption that the present tense is used for eventualities that are presented as holding *throughout the conversation* (and not only at the utterance time of the sentence at hand), we already derive the double access effect, since both the reported speech act and the report take place within this conversation. Of course, occurrences of present tense under past tense matrix clauses are not restricted to conversation-internal uses. Kamp contends that in other cases "we extend the current 'conversation' – that of which we present our report as a part of – so far into the past that it includes the speech act to which our report refers". This forms a striking similarity with Klecha's account where present-under-past is felicitous when we feel justified to present things as if we can conflate the time of the original speech act and that of the report. In both cases present-under-past is analysed as some kind of loose or non-literal talk.

¹⁰ The lowest mean is for the condition ⟨ short term reported property + C 'everyone has come to realize that the reported belief is false' + present tense ⟩ and the lowest medium for five conditions, the other seven thus having 5 as their medium.

¹¹ To be sure participants do use the lower part of the scale (scores 1 and 2) for the experimental items, and also regularly for the fillers that are ok as sentences in the given scenario except for a clear tense misfit, e.g. past time adverbial combined with a present tense. This makes the scenario less plausible that for the test items they do have black-or-white intuitions about the tense acceptability and that their choice for the 3 and 4 scores is the result of them reasoning like 'It's good as a report in terms of the content, it's only the tense that doesn't fit, so I score the sentence as a whole a 4.'

¹² The advantage of having a forced choice task in addition to a rating task is that

upper part of the scale, this suggests that present tense acceptability may indeed not be a black or white matter for language users. This point, I believe, should also be recognised in a semantic account of the present tense: it is ok, and maybe even preferable, if such account does not specify a rigorous rule that leads to a strict division between acceptable and non-acceptable cases.

Second, in light of this last point, it would be relevant to know if there are clearly distinguishable subgroups within the total group of participants, of participants who pattern together in terms of their judgements. For now, a simple examination, not aided by any statistics, revealed that in forced choice task one participant never chose the present tense, and three participants chose the present tense only once (all three for the combination of long-term property with either condition A or B). By contrast, no participant selected the present tense for all experimental items, or chose the past tense only once. Although the data need to be investigated further on this point, this tentatively suggests that some people have a higher standard of when the present tense is felicitous than others.

Combining these results with the theoretical discussion of the experiment presented earlier, a plausible semantic/pragmatic picture presents itself. Most theories on the present tense in speech reports agree that whenever the present tense is an option, the past tense is in principle an option too. So on these accounts, sentence (7) provides all the information that (11) provides and in addition something extra. If this is true then a preference for a present tense in certain cases can be understood naturally along Gricean lines: if there is an alternative form that provides more information (that is relevant for the current state of the discourse etc.) the speaker should use that form (maxim of quantity), unless she believes it's false or she does not have sufficient evidence for it (maxim of quality). With a relatively vague notion as 'current relevance' (either as such, or in terms of a pretended conflation of reported speech act time and actual utterance time (Klecha) or a pretended extended conversation (Kamp, see footnote 8), this would then explain why some people have a preference for the past and other for the present in individual cases: people simply differ in what for them counts as currently relevant. If they strongly believe that the reported proposition is still currently relevant, they have a preference for the present tense since

in the former we don't introduce possibly artificial gradualness and we can be quite sure that the present tense is acceptable in the cases where it is used since this is the form the participants chose themselves.

that gives more information. But if they are hesitant or believe it's not relevant anymore, they use the past tense, since otherwise there is a risk of violating the maxim of quality. Since there is no fact of the matter as to what counts as currently relevant each person makes their own trade-off and we see both choices.

This ends my discussion of the present tense in speech reports.¹³ What we may take from the discussion in this section (in addition to the well-known fact that what the SIMPLE PICTURE is way too simple to account for embedded contexts) is a warning that we shouldn't lean too heavily on acquaintance relations and that we should keep our eyes open for the option of felicity as a graded notion and of differences between speakers.

7.4 Historical present

Let's consider a second phenomenon of present tense use where the SIMPLE PICTURE does not in itself suffice and more needs to be said. The SIMPLE PICTURE entailed that we use the present tense to indicate that the eventuality e that we describe holds at the time t_e at which we utter our sentence. In the case of the so-called historical present, however, the present tense is used to describe eventualities that are strictly speaking in the past from the utterance time. Consider (14) where we see a switch from past to present tense:

- (14) In the days before the funeral, I saw but little of Peggotty . . .
 If the funeral had been yesterday, I could not recollect it better. The very air of the best parlour, when I went in at the door, the bright condition of the fire, the shining of the wine in the decanters, the patterns of the glasses and plates, the faint sweet smell of cake, the odour of Miss Murdstone's dress, and our black clothes. Mr. Chillip is in the room, and comes to speak to me.
 "And how is Master David?" he says, kindly.
 I cannot tell him very well. I give him my hand, which he holds in his.

¹³ It is not a comprehensive overview of the topic. Very relevant for a more comprehensive account are the observations in e.g. Altshuler et al. (2015), a corpus study and pragmatic account of the differences in present tense use between speech and attitude reports, and Ogiwara and Sharvit (2012), a study of the crosslinguistic variation between Hebrew, Japanese and English in tenses (including present-under-future, which I didn't discuss) in attitude complements and relative clauses.

...

All this, I say, is yesterday's event.

(Charles Dickens, *David Copperfield*, Chapter 9)

In cases like (14) it may seem natural to interpret the present tense in terms of pretense: the narrator pretends to be located at a different time (and maybe also place) than the one he is actually located at at the time of his utterance and he seems to relive his experience. This view on the historical present gives rise to a cluster of questions around the notion of pretense: what exactly does it mean to pretend to be at a different time? What place should pretense have in a theory of natural language interpretation (maybe in addition to a formal-semantic component)? Are there any constraints on the use of the historical present that can help us understand this phenomenon and the potentially needed concept of pretense?

Unfortunately, I will not be able to answer these questions. Nevertheless, I'll try to provide some conceptual clarification. I'll discuss Schlenker's (2004) and Anand and Toosarvandani's (2016) analyses, two of the few accounts of the historical present in the formal-semantic tradition. Both accounts courageously try to say more than just the above-given informal description and in order to do so both look at the co-occurrences of the historical present with other indexical elements (in a broad sense, as elements that are usually interpreted with respect to the actual context of utterance¹⁴). In Schlenker's account it's the co-occurrence with indexical adverbial temporal expressions, in Anand and Toosarvandani's account it's predicates of personal taste.

7.4.1 Schlenker's context of thought and context of utterance

Schlenker's key example is (15):

- (15) Fifty eight years ago to this day, on January 22, 1944, just as the Americans are about to invade Europe, the Germans attack Vercors.

Note the past time temporal adverbials in this example, which clearly indicate that the eventualities described are actually in the past. For

¹⁴ We'll see below that this notion needs to be further differentiated on a bicontextualist account, as used in both papers.

Schlenker these adverbs are an indication of how to understand the historical present: The temporal adverbials and the present tense, both at least *prima facie* indexical expressions, are not to be evaluated with respect to one and the same Kaplanian context since the combination would result in a clash.

Schlenker notes that this is somewhat similar to what we see in Free Indirect Discourse, a narratological technique in which we read the thoughts or utterances of a character in the story, but where these thoughts/utterances are not embedded under an attitude or speech verb that explicitly attributes them to this character. This technique has attracted considerable attention, first mainly from narratologists and more recently also from linguists. Schlenker gives the example in (16):

- (16) Tomorrow was Monday, Monday, the beginning of another school week! (Lawrence, *Women in Love*)

As in the case of the historical present, here too the indexical temporal adverb *tomorrow* and the past tense would result in a clash were both to be evaluated with respect to the same context. Together, Schlenker takes these data to show that we have to distinguish two contexts, a context of thought and a context of utterance. He describes the context of thought as ‘the point at which a thought originates’. The context of utterance is ‘the point at which the thought is expressed.’ He continues:

The difference rarely matters in everyday life: a person’s mouth is located near a person’s brain, and as a result the point at which a thought is formed is not significantly different from that at which it is expressed. If we were very different creatures, we might be able to have our brain in one location and to express its thoughts in another. (Schlenker, 2004, p. 279)

Although the difference doesn’t come out in everyday life, Schlenker argues that the two literary styles mentioned above, the historical present and Free Indirect Discourse, do tease the two contexts apart. Here the narrator presents things as if the context of thought is significantly different from the context of utterance. In these constructions, only one of the two contexts is the actual context of the narrator, the other is a non-actual context in the story.

As for Free Indirect Discourse, Schlenker’s account closely follows ideas already found in Banfield (1982) and Doron (1991). In Free Indirect Discourse, he contends, the context of utterance is the actual context, that is, the context of the narrator at the moment of the narration, but the context of thought is the context of a character in the story.

This gives the impression that ‘another person’s thoughts are articulated through the speaker’s mouth’. The felicity of (15) is then explained as follows: tenses and pronouns are variables and as such always anchored to the context of utterance. All other indexicals, by contrast, are anchored to the context of thought. For (15) this means that the time denoted by *tomorrow* is in the future for the character (the context of thought) but in the past for the narrator (the context of utterance, which is the actual context here), resolving any impending contradiction.

While the Free Indirect Discourse part of Schlenker’s account has received considerable attention, the historical present component has gone somewhat unnoticed (one notable exception is Eckardt 2015). Schlenker proposes to analyze the historical present as the mirror image of Free Indirect Discourse. He argues that we find the opposite pattern: here it’s the context of utterance that is a non-actual context (in the story), while the context of thought is the actual (narrator’s) context. Indexical expressions still having the same anchoring, this means that the present tense in (16) is anchored by the (non-actual) context of utterance, while the temporal adverbial *fifty eight years ago to this day* is anchored by the context of thought, which here is the actual narrator’s context. As in the case of Free Indirect Discourse, this then explains the felicity of (15).

Despite its elegance, I believe there are some problems with this account of the historical present. In the following I will discuss the three problems from Bary (2016).

The historical present and the two contexts

The first problem is that there is no intuitive reason to say that for sentences in the historical present, the context of utterance is shifted to a non-actual context in the story, while the context of thought remains the actual, narrator’s context. Surely, historical presents seem to be interpreted with respect to a non-actual context, but there is no intuitive reason to say that this is a context *of utterance* (rather than of thought). Schlenker writes:

from the present perspective, the explanation [for the felicity of (15)] is simply that the time of the Context of Utterance v is set exactly fifty eight years before the time of the Context of Thought θ , which yields the impression that the speaker is directly witnessing the relevant scene (Schlenker, 2004, p. 281)

Note that Schlenker speaks about *a witnesser*. A witnesser (the effect to be explained), however, is intuitively a thinker at least as much as a

speaker, and hence the effect is not explained by shifting the context of utterance while leaving the context of thought unchanged. Take, for instance, our example (14), where the first-person narrator seems to be lost in thought. It is important to keep in mind here that for Schlenker the distinction between the two contexts is not just a technical distinction. He wants to *explain why* tenses and pronouns are evaluated with respect to the one, and all other indexicals with respect to the other context. In his explanation he uses the conceptual distinction between the two contexts, one being the context of a thinker and the other a context of a speaker. For demonstratives, for example, he maintains that their reference depends on the ‘referential intentions of a thinking agent’ which explains why they are evaluated with respect to the context of thought and hence shifted to the character’s perspective in Free Indirect Discourse. This means that we would lose much of the explanatory value if we gave up the conceptual characterisation of the two contexts.

The historical present and other indexicals

Schlenker’s account of the historical present makes predictions about the interpretation of other indexicals in the sentence, such as demonstratives and temporal adverbs. These predictions are not borne out. As we have seen, Schlenker argues that in the case of the historical present it’s the context of utterance that is shifted, while the context of thought remains the actual, narrator’s context. This means that the tenses are evaluated with respect to a non-actual context in the story, explaining the fact that the present tense refers to the past. But it also implies that the other class of indexicals (containing adverbs, demonstratives etc.) is evaluated with respect to the actual context. (It might be confusing to call this the ‘narrator’s context’ since the narrator pretends to speak at a different time, but it is the context where (s)he is actually speaking). This seems to be correct for (15), but just as natural are examples such as (17) (made-up) where adverbial indexicals are interpreted with respect to the shifted context (as are the tenses).¹⁵

- (17) Paul walked to his mother’s house. Suddenly he notices Susan, his French teacher. He hides behind the bushes since today he

¹⁵ Schlenker gives example (i) in a footnote, leaving it for future research:

- (i) Forty years ago today John Lennon is about to take to the stage at the Cavern. Tonight his life will change forever.

is not up to talking to her. When she is gone, Paul continues his walk.

- (18) ?Paul walked to his mother's house. Suddenly he notices Susan, his French teacher. He hides behind the bushes since that day he is not up to talking to her. When she is gone, Paul continues his walk.

If we follow Schlenker's analysis, *today* in (17) should be evaluated from the actual context, that is the context with respect to which the past tense of *walked* (so before the shift to historical presents) is evaluated as being in the past. The natural interpretation, however, is that it is the day surrounding the time in the story, the time when he sees Susan. In fact, to refer to that day the expression *today* seems a more natural choice than *that day*, as used in (18), the choice predicted by Schlenker's analysis.

A possible objection may be that *since today he is not up to talking to her* in (17) is Free Indirect Discourse, and that that's why *today* is evaluated with respect to a shifted context of thought, which is in this case the same as the shifted context of utterance, with respect to which the present tense is evaluated. In other words, we have Free Indirect Discourse in the historical present, a phenomenon also discussed in Eckardt (2015). This combination is problematic on Schlenker's account, however. As we have seen, Schlenker argues that the constellation that characterizes Free Indirect Discourse is the combination of an actual narrator's context for the context of utterance with a context of thought that is shifted to a context in the story. By contrast, for the historical present, it's the context of utterance that is shifted, while the context of thought is the actual, narrator's context. This predicts that Free Indirect Discourse can never occur in the historical present, since the two make contradictory requirements on the two contexts.

Having seen in (16) that the conceptual distinction between the two contexts (as one being the context of a speaker and the other of a thinker) is untenable, the current observation shows that even without the conceptual component of the analysis, the account is problematic. We have seen that the historical present does not exclude the possibility of other indexicals being evaluated with respect to a non-actual context as well. Again, we could try to rescue some of Schlenker's account, this time by giving up the idea that the context of thought is always actual in the case of the historical present, and the same for the context of utterance in the case of Free Indirect Discourse. This then would allow for constel-

lations where two context shifts are stacked on top of each other (and a mechanism would need to guarantee that we do not end up with two different non-actual contexts!). In the next section we will see that there would still be a problem left.

The lack of a non-actual *I*

A final argument against treating the historical present as the mirror image of Free Indirect Discourse is the following. While Schlenker treats tenses and pronouns on a par (being variables they are always interpreted with respect to the context of utterance), a striking difference between the two is that we do not find the equivalent of the historical present in the person domain, that is a non-actual *I*.

Schlenker makes up an example that, according to him, tentatively suggests that it does occur:

- (19) Situation: Mary, a psychic, is sitting at a café in Clamart with a journalist in 2002. They are trying to reconstitute what happened during the attempted assassination of de Gaulle in 1961 at the Petit Clamart. Mary utters the following:
 It's April 2, 1961. I am de Gaulle. I am on my way here in the presidential car. Two snipers appear ...
 (Schlenker, 2004, p.298)

Schlenker claims that while *here* refers to the actual context, not only the present tenses but also *I* are evaluated with respect to the shifted context of utterance. This example is problematic for two reasons. First, I am not sure that *I* refers to De Gaulle here. The sentence as a whole should rather be interpreted as if the speaker self-ascribes the property of being De Gaulle. Second, if the possibility of a non-actual *I* were part of our language (as is the historical present), we wouldn't expect to need a psychic to let it come about. Note in this respect that for the historical present too, the narrator only presents things *as if* the context of utterance is non-actual.

Although the idea of distinguishing between two contexts of evaluation for indexicals seems promising, the division that Schlenker makes does not seem tenable. In the next section I'll discuss an account that is likewise informed by the co-occurrence with other classes of indexical expressions in the broad sense, and that likewise distinguishes between two contexts of evaluation.

7.4.2 Anand and Toosarvandani's context of assessment and context of utterance

Anand and Toosarvandani (this volume) try to understand the historical present better by studying the interaction between this use of the present tense and predicates of personal taste. They observe that while disagreement about the applicability of such predicates is usually 'faultless' (i.e. disagreements without a clear matter of the fact), it's not in the case of the historical present. To see this compare the present and past tense in the last sentence of (20):

- (20) C: [talking to A and B] How was your vacation?
 A: Well, while we're in Massachusetts, we visit this apple orchard. They have their own cider. It's delicious!
 B: No, it { 's, was } disgusting.
 (Anand and Toosarvandani, this volume)

The intuition here is that in the case of the past tense speakers A and B can simply agree to disagree and continue, but in the case of the present tense there is a problem that needs to be solved (i.e. A and B they have to settle this issue) before they can continue. At a general, intuitive level, a natural explanation provides itself: the historical present can only be used in narratives and we do have *joint* oral narratives, with multiple people telling a story together (see references in their chapter), but such narratives, as are narratives that are the product of one single speaker, (by default, I would add, i.e. unless we have linguistic clues to the contrary) are evaluated with respect to a single 'point of view', which is impossible in the case of a faultless disagreement. This then explains why the historical present tense is infelicitous on a faultless disagreement interpretation.

Anand and Toosarvandani make this explanation more precise in the following way. Like Schlenker, they use a bicontextual semantic framework. In their version, the second context that is relevant for the interpretation of indexicals, next to the context of utterance, is the *context of assessment*. Anand and Toosarvandani's distinction does not line up with Schlenker's between a context of thought and a context of utterance, as they divide up context-sensitive expressions differently. The interpretation of the historical present (and actually all present tense uses) and that of predicates of personal taste are connected as they are both relative to this *context of assessment*.

Building on their earlier work (Anand and Toosarvandani 2018a, 2018b),

they propose a unified semantics for the present tense that includes the canonical use of the present tense, the broadcaster present tense ('he shoots . . . and he scores!!!') and the historical present. They argue that all three uses of the present tense can be understood as picking up the time of the context of assessment and in that sense it's a unified proposal. Crucially, however, this time of the context of assessment is not always the time of the context of utterance, our t_c . In the case of the historical present, the time of the context of assessment precedes the time of the context of utterance.

From here they explain the impossibility of faultless disagreement in sentences with the historical present as follows: The use of the historical present is restricted to narratives, which require a stable context of assessment. For faultless disagreements, by contrast, we need multiple contexts of assessment. So the historical present is not compatible with a faultless disagreement interpretation of predicates of personal taste.

In order to have a stable context of assessment in the case of the historical present, they specify this further as 'the interval [i.e. the time of the context of assessment] is conventionally set wide enough to accommodate the entire story'. One advantage of this analysis is that it explains why the historical present, but not the canonical use of the present tense, is compatible with non-stative predicates in English. The time of the context of assessment, non-instantaneous in the case of the historical present, can happily contain eventualities of predicates that don't have the subinterval property (cf. Dowty 1986). A drawback of the choice to set the time of the context of assessment wide enough to accommodate the entire story is that we do not explain the intuition that in a series of historical present tense descriptions as in (14) what is present/actual (or maybe 'where we are in the story') seems to change as the discourse unfolds. The context of assessment is stable on this account, and essentially so, to explain the interaction with predicates of personal taste. The context of utterance is updated throughout the narrative, but since the context of assessment is always in the past of the context of utterance in the case of the historical present, the context of utterance cannot do any work in explaining the updating effect.

As a research agenda Anand and Toosarvandani's enterprise of looking at the interaction between the historical present and experiential elements is very valuable and to be appreciated. The same holds for the role they let the notion of 'narrative' play in their analysis. I believe that these are promising directions for the future and in both respects I believe that semanticists should benefit from the numerous observations

and insights obtained in cognitive linguistics and narratology. I'll discuss this a little further in the next section.

7.5 Concluding remarks and outstanding questions

We started our discussion of the present tense with a very simple picture: we use the present tense to indicate that the eventuality e that we describe holds at the time t_c at which we utter our sentence. We have seen that we need to modify this picture in at least two directions:

- On the basis of our discussion of present tense embedded in speech reports: what holds at t_c is not necessarily the eventuality described, at the very least not what we would *prima facie* take as such;
- On the basis of our discussion of the historical present: it may not always be t_c to which the present tense is related.

However, neither of the two present tense phenomena has received a satisfactory analysis to the best of my knowledge. How should we proceed from here? My general take on this is that we should see this as an interdisciplinary enterprise. I will sketch a few possible directions.¹⁶

Looking back at what we have seen, it is striking to find both in Klecha's account of the embedded present tense and in many accounts of the historical present the idea of 'non-literal talk'. On Klecha's account, when present tense is used in the complement of a speech report we present things *as if* we can conflate the time of the reported utterance and the actual time at which we make this report. In many accounts on the historical present, we do *as if* we are at a different time. In Schlenker's account, for example, we present things *as if* the context of utterance is a non-actual context and significantly different from the context of thought. A major step forward could be set if we understood this *present as if* better.

In general, I expect that formal semantics could learn much from insights from narratology, cognitive linguistics and, more recently, philosophy of fiction. One may be Nijk's (2019) distinction, apparently going back all the way to Bühler (1934/1990), between two distinct conceptual

¹⁶ I acknowledge that in many accounts of tense and aspect, it's not the eventuality time but a certain *reference time* (also called *location time* or *topic time*) that tense relates to the utterance time (and the relation to the eventuality is only indirect, mediated by this reference time, with aspect specifying the relation between eventuality time and reference time). I left aspect out for reasons of space.

scenarios that may facilitate ‘paradoxical’ combinations of indexical expressions, as we find with the present tense: a displacement scenario and a representation scenario. While most scholars, according to Nijk, have taken for granted that the historical present must be resolved in terms of a displacement scenario where the ‘conceptualizers’ are mentally displaced to the distal space, there are examples of the historical present where this scenario is problematic, given the presence of retrospective elements. This holds for example for (21):

- (21) For about two minutes, Vleerlaag hears shots [fired] at irregular intervals.

Translation of the Dutch original example: ‘Ongeveer twee minuten hoort Vleerlaag schoten, met onregelmatige tussenpozen.’

(van Krieken et al. 2016, 167-168; Nijk 2019, 43)

As Nijk puts it, an observer on the scene would not be able to oversee the temporal structure of the events in this way (on a par with (15), but not (14)).

Probably related to this, it would be good to put more effort in understanding the role of *experiencers* in the interpretation of language. Free Indirect Discourse, originally the domain of narratologists and text linguists, has recently received a lot of attention in formal semantics (e.g. Schlenker 2004; Sharvit 2008; Maier 2015; Eckardt 2015). For Free Indirect Discourse it is has become very common to introduce a thinker, as distinct from the narrator/actual speaker. But in the narratological literature Free Indirect Discourse is just one form of *represented consciousness*. Represented consciousness is ubiquitous in narratives and also includes for example *narrated perception* where the eventualities described are the eventualities as perceived by some experiencer in the story, as in (22):

- (22) He opened his eyes. The sun was bright. Children were playing on the grass.

If some kind of thinker is introduced to deal with Free Indirect Discourse (which describes what a character thinks), we might expect the same for narrated perception (which describes what a character perceives), but this phenomenon is much less clearly present in the current formal-semantics research agenda. It is good to realize, however, that the interest of semanticists in narratological techniques is not new. In fact, in the eighties formal semanticists working on tense and aspect

did already look at narrated perception, see e.g. Caenepeel (1989) and Dowty (1986). Dowty writes e.g.

we are invited to interpret such ‘scene-describing’ statives as if they were the perceptual observations that a hypothetical human observer would make in the situation described, either the narrator or the protagonist from whose point of view the narrative is constructed (Dowty 1986, p. 50)

So, in addition to the narratological and cognitive-linguistic literature, a promising direction would be to reexamine this formal-semantic literature on tense and aspect from the eighties (as Anand and Toosarvandani already did for their contribution to this volume), since tense and aspect are clearly not just about reconstructing the temporal order between described events, as an objective matter, but are tightly connected to experience.

The results from Bary et al.’s 2018 experiments on tense in speech reports raise the question what kind of account would be able to deal with the observation that tense choice seems to be influenced by certain hard-to-formalize factors. Is compositional semantics still the field where we should try to deal with these observations (for example in terms of acquaintance relations (see Sharvit and Moss’ contribution) to times or states as it is traditionally done) or should we rather move to looser pragmatic talk? And in addition, we have seen that the use of linguistic experiments almost inevitably leads to gradual outcomes and differences between language users. At the moment our semantic theories are not adequately equipped to deal with these methodological consequences. Should this change? These points should definitely be discussed in collaboration with psycholinguists, but I also see a role for philosophers of language here.

In a following stage, after consultation of and collaboration with the language disciplines I mentioned, the main question would be how to connect the formal-semantic elements to the insights from these collaborations. Is the formally worked-out part of the present tense just the simple picture as I called it and is the remainder of what we need external to formal semantics, or should we try to incorporate this?

In terms of the topic of this volume, at the very least, we can say that this study on the present tense suggests that a fruitful bridge between linguistics and philosophy is not to be found exclusively on the formal side. The two fields should also work together to deal with the challenges we encountered to make clearer some conceptual issues concerning e.g.

perspective taking, pretense, gradualness in language and differences between speakers.

I want to end this chapter with a quote from the cognitively oriented linguists Sweetser and Fauconnier:

Natural language has a striking potential for making rich and extensive meaning available on the basis of very little overt linguistic structure.
(Sweetser and Fauconnier 1996)¹⁷

Indeed, even if you only consider the present tense it is amazing how this morpheme opens up a whole world with people who have certain beliefs, with experiencers and invitations to us to imagine. Exciting about the current time is that the interests from language disciplines as different as philosophy, formal semantics, narratology, and cognitive linguistics are very close to each other. If forces are joined, a better understanding of the present tense should be within reach.

¹⁷ I found this quote in Nijk (2019).

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