

# Presupposition Projection and Main Content

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## 1 Introduction

The problem of *projection* has attracted much attention from linguists. In addition to constituting a kind of enigma, it has exposed the collaboration or (sometimes) tension between semantics and pragmatics. Put simply, projection corresponds to a set of observations which share a common feature: operators like negation, interrogation or possibility modals seem to affect only a part of the semantic content of a sentence. For instance, in (1a) there are two pieces of information, the *main content* and the *presupposition*. The former is the proposition that Paul does not smoke and the latter the proposition that he has been smoking. When the sentence is negated, as in (1b), the presupposition remains untouched whereas the main content is negated. (1c) illustrates the same configuration with an expressive (Potts 2005). The proposition that the speaker's neighbour is stupid is not questioned but remains in effect. In (1d), the speaker's hesitation conveyed by *well* (Ajmer & Simon-Vandenberg 2003: 1124) escapes the possibility modal.

- (1) a. Paul stopped smoking.
- b. Paul didn't stop smoking.
- c. Did my stupid neighbor buy a new car?
- d. It might be the case that, well, Paul is a sort of double agent.

Although projection is not limited to presuppositions (Potts 2005), it is most frequently studied on the basis of presupposition triggers like

*stop, know, only, too* or clefts. In this context, the main question has been to derive the projection properties of complex sentences such as (1b) from those of elementary sentences like (1a). This *projection problem* (Langendoen & Savin 1971) has received several solutions, which we will not review. We will only note two aspects of this research domain, which are directly relevant to our concerns.

First, the role of context and pragmatic interpretation has been highlighted on several occasions. In general, it seems that projection does not occur whenever it would lead to an implausible interpretation. Two well-known examples are the hypothetical status of the presupposition in an *if*-clause, as in (2a), and certain so-called *factive* verbs, as in (2b), copied from Karttunen (1971: ex. (25c)).

- (2) a. If Paul has ever smoked before, then he has stopped.  
 b. If I discover later that I have not told the truth, I will confess it to everyone.

Concerning (2a), if the presupposition that Paul has smoked projected, it would create a conflict with the *if*-clause, since the same proposition, that Paul has been smoking before, would be both entertained by the speaker (projection) and contemplated as a simple possibility (*if*-clause). Similarly, with (2b), projection would create a conflict with the possibility that the speaker does not know for sure that she has not told the truth (*if*-clause), see (Stalnaker 1974). This may sound pretty trivial, except for the fact that, in such cases, the projection does not ‘resist’ but gives way, thus avoiding an interpretation problem.

Second, as already apparent from (1c, d), projection is not limited to standard examples of presuppositions. It occurs also with what Potts characterizes as *conventional implicatures*. It is not clear whether projection is the common symptom of a set of actually different mechanisms or rather an homogeneous and general mechanism, whose manifestations are modulated by more local differences (lexical semantic content, for instance).

In this paper, we discuss a recent approach to projection (Simons et al. 2011, 2017; Beaver et al. 2017), which argues for the latter perspective, making projection essentially a side-effect of the management of the *Question Under Discussion* (QUD) à-la Roberts (2012). We call this theory the *QUD-based approach*.

Summarizing, the QUD-based approach predicts that a presupposition projects (= is not affected by a truth-inversion/suspension operator) if and only if either (i) it does not address the current topic of conversation (the QUD) or (ii) has no *Obligatory Local Effect*. The

intuition behind this equivalence can be described as follows. For (i), when a piece of information does not address the QUD, it is somehow ‘kept off the track’, that is, kept at a distance from the main flow of discourse. In this respect, it is not impacted by operators like negation, question, or possibility modals, which target precisely the main information. The Obligatory Local Effect, introduced in Tonhauser et al. (2013), corresponds to the fact that a projective piece of information is captured by a belief operator. For instance, a sentence like *Mary thinks that Paul stopped smoking* implicates that Mary believes that Paul does not smoke but also that he has been smoking before. In other terms, the belief operator captures the presupposition of the complement clause. When some content has no Obligatory Local Effect, this means, roughly speaking, that it can be detached from the main flow of discourse without major damages, most notably without affecting the truth-conditional status of a sentence. This idea, highlighted in Potts’ (2005) book, but anticipated by Frege, can be illustrated by non-restrictive relative clauses. So, in *Mary thinks that Paul, who is her neighbor, stopped smoking*, the fact that Paul is Mary’s neighbor is not necessarily part of Mary’s belief state. Here the intuition is that, when a piece of information is not obligatorily captured by a belief operator, it can ‘float around’ and, as a result, escape the truth suspension/inversion operators.

In this paper, we argue that this view is only partially correct. Our precise reasons for this claim are stated in the relevant sections, but we can motivate our reservations from a more general point of view. The QUD-based approach is, to a large extent, a radical pragmatics approach, that is, it makes presupposition projection essentially revolve around the interpretation of speakers’ intentions as to the discourse topic. While emphasizing the role of pragmatics has been an influential and successful trend in theoretical linguistics for years, it seems that the time has come for a more balanced view, which makes room for *learning* linguistic usages. People certainly react to contexts and adjust their contribution to discourse interaction, but they no less certainly learn *preferences* of usage. When these preferences are ‘strong’, that is, strongly context-independent, they can conflict with ‘soft’, that is, context-dependent, pragmatic pressures. In that case, delineating the equilibrium between the different forces cannot always be done in a crisp and clear way, by applying elegant principles to derive a robust solution. We have to accept the possibility that things are murkier than one may wish. With respect to presupposition projection, we argue that lexical preferences (strong), discourse attachments (strong) and QUD-relevance (soft) interact in a number of ways, some of which we describe

in the last section (4).

The structure of the paper is as follows. We present the QUD-based approach in Section 2, before discussing it in Section 3. In Section 4, we advocate a different approach, based on a distinction between *at-issue content* and *main content*. We will use English as our reference language but turn occasionally to French when it provides interesting contrasts between lexemes or constructions.

## 2 Projection under the QUD-based Approach

The QUD-based approach is partly grounded on the following idea: a piece of information can project only if it is not interpreted as relevant to the QUD, that is, to a set of plausible alternatives among which the participants in the linguistic exchange seek to discriminate.<sup>1</sup> For instance, in (3), answers A1 and A2 entail that the responder believes that Paul broke the window pane. A2 answers the question via the presupposition that Paul broke the pane, a possibility which is analyzed at length by Simons (2007). Examples like (4) are even more interesting because they suggest that projection does not occur in certain configurations where the presupposition is relevant to the QUD (did Paul break the pane?). It is crucial to note that assuming that the presupposition projects in (4-A) below results in a somewhat infelicitous answer, insofar as the speaker not noticing that Paul was around is an irrelevant fact, with respect to the explicit QUD. Changing the context can make this fact relevant under a projective interpretation, as illustrated in (5), where the answer aims at alleviating the responsibility of the responder.

(3) Q: Who broke the window pane?

A1: It's Paul.

A2: Anna noticed it's Paul.

(4) Q: Is it Paul who broke the window pane?

A: I didn't notice that Paul was around.

(5) Q: Is it Paul who broke the window pane? I thought I had asked you to keep an eye on the little scamp!

A: I'm sorry, I didn't notice he was around.

In contrast to (2b), (4) does not make the belief set of the speaker inconsistent when the presupposition projects. Instead, in that case,

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<sup>1</sup>We assume the standard definition of alternatives as exhaustive mutually exclusive possibilities ( $A_i \Rightarrow \neg A_j$  for every  $i \neq j$  in the set of alternatives). The implementation of this constraint depends on the ontology at hand. For instance, in a classical modal frame with a set of worlds  $W$ , a set of alternatives is any  $\mathcal{A} \subset \mathcal{P}(W)$  such that the members of  $\mathcal{A}$  (information states) are pairwise incompatible.

the main content would be either partly irrelevant to the explicit QUD or relevant to a different QUD. This shows that, at least in some cases, there is an interaction between the QUD and presupposition projection. In the QUD-based approach, this interaction is extended to projection in general and systematized in a way that makes examples like (3) and (4) particular cases of more general principles. For simplicity, we will divide our presentation of the approach into two parts, following mainly the neat expositions given in Beaver et al. (2017) and Simons et al. (2017).

## 2.1 QUD and Focus

The QUD can be characterized formally as a set of restricted alternatives. The restriction comes from the available contextual cues, which allow one to exclude theoretically possible but otherwise implausible answers. For instance, with a question like *Who paid for the car?*, the QUD is any set of alternatives of the form *X paid for the car*, where *X* is a plausible candidate, given the context. For instance, *X* could be a member of the family, a friend, a business partner, or a group thereof, etc. The most recent QUD is called the *Current Question*. So, the Current Question is by definition a set of plausible alternatives.

The *focus* is a set of unrestricted alternatives (no plausibility restriction applies). For QUD and focus to be *congruent*, it is required that the focus be a superset of the QUD (Beaver & Clark 2008). This accounts for the fact that dialogs like (6) can be felt as odd. As with (4), we can ‘repair’ the exchange by assuming that a different QUD is accessible. For instance, if Paul has a reputation of being a destructive child and is likely to have broken the pane, the answer is interpreted as correcting the possible belief that Paul broke the window and the question might sound rhetorical.

(6) Q: Who broke the window pane?

A: Paul broke [a vase]<sub>F</sub>.

The central feature of the relation between QUD and focus is the *Current Question Rule* of Beaver & Clark (2008), expressed in (7). (7.2) is straightforward: it prevents a question to be already resolved.<sup>2</sup> (7.1) accounts for the fact that, in general, questions ‘presuppose’ that some answer is true.

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<sup>2</sup>The status of rhetorical questions is not a problem under this view. They can be considered as special speech acts, where the goal is not to get information but to elicit a public assertion, or as more or less strongly biased questions, where the prior probability distribution of answers for the speaker favors certain elements of the set of formally possible answers.

(7) *Current Question Rule*

1. The Current Question must contain at least one true alternative.
2. The Current Question must contain at least two alternatives which are not true or false in the common ground.

The Current Question Rule interacts with focus as follows. When (i) the set of alternatives determined by focus is congruent with an explicit or reconstructed Current Question and (ii) a subset of alternatives is excluded (by negation, for instance), the Current Question Rule still requires that one alternative be true, which amounts to projecting an existential presupposition. For example, in (8), in addition to the standard correspondence between Q1 and A, the Current Question could be Q2. Assuming that A has a form  $\neg([\text{Paul}]_{\mathbb{F}} \text{ came})$ , the expression in the scope of the negation is congruent with a Current Question of the form  $\{X : X \text{ came to the meeting}\}$ , for any contextually plausible agent  $X$ . The Current Question conveys the existential presupposition  $\exists X (X \text{ came to the meeting})$ . The proposition that Paul didn't come eliminates those alternatives in which Paul came, thus constituting an answer to the Current Question. The negation does not eliminate the existential presupposition, since the latter depends on the Current Question (recoverable from the focus structure and the context), not on the answer.

(8) Q1: Who didn't come to the meeting?

Q2: Who came to the meeting?

A:  $[\text{Paul}]_{\mathbb{F}}$  didn't come.

For simplicity, in what follows, we will ignore the distinction between QUD and Current Question (the most recent QUD). Unless otherwise indicated, the QUD will always be the Current Question.

## 2.2 QUD and Projection

In Simons et al. (2011), it was argued that a piece of information  $p$  can project whenever the question whether  $p$  is not intentionally relevant to the QUD. The definition in Beaver et al. (2017) is different and we will focus on the latter, because it clarifies the claims in Simons et al. (2011) on at least one crucial point. The authors use the notion of *Obligatory Local Effect*, introduced in previous work Tonhauser et al. (2013) and illustrated in (9). In (9), the belief that Bill has been smoking, which is the presupposition of the clause *Bill has stopped smoking*, is necessarily attributed to Jane. Generalizing, we observe an Obligatory Local Effect whenever a projective content is obligatorily attributed to the agent of

a belief operator. The original definition in Tonhauser et al. (2013) is reproduced in (10)

- (9) Jane believes that Bill has stopped smoking.  
(Tonhauser et al. 2013: ex. (38a))

(10) *Obligatory Local Effect*

A projective content  $m$  with trigger  $t$  has obligatory local effect if and only if, when  $t$  is syntactically embedded in the complement of a belief-predicate  $B$ ,  $m$  necessarily is part of the content that is targeted by, and within the scope of,  $B$ .

In contrast to (9), a sentence like *Jane believes that the stupid Bill has stopped smoking* does not entail that Jane believes that Bill is stupid (the local effect is not obligatory). The Obligatory Local Effect is a component of the constraint on projection. In a nutshell, a piece of information projects if and only if it does not address the QUD or is not subject to the Obligatory Local Effect. In the following constraint on projection, condition 1 makes sure that the non-projecting content has at least minimal relevance to the QUD, by preventing it from being compatible with all the alternatives in the QUD. We abbreviate the projection constraint in the *Projection Equation* (11.3).

(11) *Projection Constraint*

A piece of information projects if and only if:

1. it does not entail that some possible answer to the QUD is false, or
2. it has no Obligatory Local Effect.
3. *Projection Equation*:

$$\text{Projection} \equiv \text{QUD-Irrelevance} \vee \neg\text{OLE}.$$

If a presupposition trigger gives rise to a presupposition with Obligatory Local Effect, the Projection Equation predicts that, in a projective environment, such as negation, interrogation, embedding possibility modal construction, projection will not occur if the presupposition is interpreted as relevant to the QUD. We already saw an illustration of this mechanism with (4). The possibility that Paul was or was not around eliminates certain alternatives. If Paul was not around, he cannot have broken the window pane. If he was around, it eliminates alternatives in which he was too far to have broken the pane.<sup>3</sup> Intuitively, the answer in (4) is biased towards a negative factual or epistemic judgment: Paul didn't break the pane or, at least, the speaker has no evidence that it might be the case.

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<sup>3</sup>The second possibility calls for a more liberal, probabilistic, view, which we adopt in Section 4.2.

Finally, we come to focus structures where presuppositions project systematically. In the case of factive verbs, Beaver et al. (2017) and Simons et al. (2017) use again the QUD-based approach to predict projection whenever the focus structure is as in (12). The set of alternatives has the form  $\{\text{Paul knows that } p : p \text{ is a proposition}\}$ . Whatever the restrictions on the set of plausible propositions are, they must include the fact that they are *knowable*, which entails that they are true. So, in the case of (12), the proposition that Mary solved the problem is considered as true, and, in this respect, ‘projects’.

(12) Paul doesn’t know that [Mary solved the problem]<sub>F</sub>.

### 3 Discussion

The QUD-based approach provides a tight connection between projection and the management of information in discourse. In the spirit of Stalnaker (1974), it offers an alternative to purely lexical theories, which see presupposition projection as a mere effect of lexical instructions attached to presupposition triggers.<sup>4</sup> In contrast to Stalnaker, it adopts a broader perspective because it deals with conventional implicatures as well, and because it accounts for non-projection. In this section, we discuss in turn the Obligatory Local Effect and the predictions of the QUD-based approach with respect to presupposition triggers.

#### 3.1 The Obligatory Local Effect and Anaphoric Triggers

It is intuitively clear that many lexemes trigger information that (i) does not address the QUD and (ii) is not presented as being common ground. Such lexemes fall into the general category of conventional implicatures, as identified in Potts (2005). Given the Projection Equation (11.3), we would expect that, if conventional implicatures robustly project, as suggested in Jayez (2015), Beaver et al. (2017), they also robustly escape the Obligatory Local Effect or are not relevant to the QUD. Beaver et al. (2017: 281) also consider the case of presupposition triggers that lack Obligatory Local Effect and mention in this regard anaphoric triggers.

Before discussing this point, let us note that the literature on such matters is confusing. What has been labeled *conventional implicatures* by Grice includes certain anaphoric triggers, a fact which has been mostly overlooked. Grice (1975, 1978) classified *therefore* and *but* as conventional implicature triggers. In this subsection, we look at some consequence, concession and additive triggers, like *therefore*, *as a re-*

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<sup>4</sup>However, we doubt that, in the current state of the literature on presuppositions, such theories exist.

*sult, so, however, yet, too*, etc. Summarizing, we show (i) that all these triggers are very probably presupposition triggers and not conventional implicature triggers in the sense of Potts (2005) and (ii) that they raise a problem for the QUD-based approach. More precisely, we show that the mentioned discourse markers, like a number of presupposition triggers, (i) are anaphoric, (ii) can be backgrounded, (iii) clearly tend to project and, in addition, (iv) have Obligatory Local Effect and (v) can address the QUD, even if they project. We briefly explain these five points in turn, mentioning *too* only for the last two points, since its status as a presupposition trigger is already well-established.

(i) It is markedly odd to use *therefore, yet, etc.* without referring to an antecedent provided by the previous discourse or the context. So, all these items are anaphoric.

(ii) If we adopt Potts' (2005) idea that presuppositions are presented as being in the common ground, in contrast to conventional implicatures, which are presented as new, examples like those in (13a, b) suggest that the triggers under review behave like presupposition triggers. (13ab) reproduce a pattern used by Potts (2005: ex. (2.41)) in order to show that conventional implicatures are *antibackgrounding*, i.e. they resist previous mention in the discourse. No effect of this type is observed with *therefore* (13b). In (13c, d) the consequence and concession relations are relativized to the antecedent of an *if*-conditional, exactly as the presupposition of (2a) or similar examples. Altogether, (13) suggests that the discourse markers under consideration are presuppositional. This could be expected under a view of presupposition triggers as elements that describe their antecedent in a particular way. For instance, *stop smoking* refers to a previous state described as satisfying the property of smoking. This is the gist of the *anaphoric* theory of presupposition (van der Sandt 1992, Geurts 1999). With *therefore*, for example, one refers to a proposition which somehow entails the proposition expressed by the sentence or clause to which *therefore* adjoins: *therefore P'* refers to some *P* such that *P'* is a consequence of *P*.

- (13) a. ??Paul is the committee chairman. As a result, Paul, **who is the chairman**, cannot be a counselor.
- b. Being the committee chairman is not compatible with being a counselor. Paul is the chairman, **therefore** he cannot be a counselor.
- c. If, really, being the committee chairman is not compatible with being a counselor, Paul, who is the chairman, cannot, **as a result**, be a counselor.
- d. If, really, being the committee chairman is not compatible with being a counselor, I am surprised that Paul is the chairman and **yet** also a counselor.

(iii) The contents that correspond to the consequence or concession relation are *not* part of the main content. Compare their status with that of *because*, which is genuinely part of the main content. In (14a, b) the causal relation between the two propositions is negated or questioned. In (14c, e) the consequence or concession discourse relation associated with *so* or *yet* escapes the negation or question operator, which bears only on the propositions connected by the discourse relation.

- (14) a. I don't think that Paul resigned because he didn't get along with his boss.
- b. Did Paul resign because he didn't get along with his boss?
- c. I don't think that Paul didn't get along with his boss and, so, resigned.
- d. Did Paul disagree with his boss and, so, resign?
- e. Did Paul disagree with his boss and, yet, decided to stay?

(iv) The mentioned discourse markers have Obligatory Local Effect. In (15), the only possibility to make the markers escape the belief operator is to interpret the sentences as coordinating two beliefs of Mary (*Mary believes that p and as a result/yet she believes that p'*), but this does not fit with the syntactic structure, which is a coordination of two complement clauses under the belief operator (Mary believes that A and B).

- (15) a. Mary thinks that Paul is the committee chairman and, as a result, cannot be a counselor.
- b. Mary believes that Paul is the committee chairman and, yet, is a counselor.

Additive markers like *too*, *again* or *still* behave similarly. In a context where Susan and Paul have been given a problem to solve, (16b) sounds contradictory because Mary's thoughts include the fact that

Susan solved the problem, see Tonhauser et al. (2013: ex. (46a)) for a similar case.

- (16) a. Mary doesn't know that Susan has solved the problem. She thinks that Paul solved it.
- b. #Mary doesn't know that Susan has solved the problem. She thinks that Paul solved it too.

(v) This part is slightly trickier. Imagine the following situation: two physicists discuss some problematic observation about two particles,  $p_1$  and  $p_2$ . The physicists cannot determine what happened to the particles. They only know that the disintegration of either one automatically causes the disintegration of the other. The two answers in (17) are felt as odd or are reinterpreted as metalinguistic. In the latter case, the responder corrects the questioner by signaling that the use of *therefore* or *too* is inappropriate, due to the non-satisfaction of the presupposition (that  $p_1$  disintegrated). This is normally only possible through a special prosodic focus marking, such as a rise in pitch and loudness on *therefore* or *too*, see Beaver et al. (2017: ex. (19)) and Jayez (2015), Simons et al. (2017) for similar examples. In the former case, the oddness of the answers comes from the fact that the presuppositions tend to project, which is not compatible with the final assertions. In (17-A1), the negation must apply to the main content, giving the reading 'I don't think that  $p_2$  disintegrated'. If *therefore* did not project, it would be affected by the negation, giving the –complex but normal– reading 'I don't think that  $p_2$  disintegrated as a result of  $p_1$  disintegrating because, in fact, neither  $p_1$  nor  $p_2$  disintegrated'. Since *therefore* and *too* have Obligatory Local Effect and their presupposition is relevant to the QUD ('What is the responder's opinion about  $p_1$  and  $p_2$ ?'), the dualized version of Projection Equation (11.3), i.e.  $\text{OLE} \wedge \text{QUD-relevance} \Rightarrow \text{non-projection}$ , predicts that it should not project. It is not clear how the projection constraint (11) deals with such cases. The fact that *too* and similar markers robustly project is not a novel observation, see Jayez (2015) for discussion and references. The data sketched here reinforce the possibility that it is not a limited phenomenon.

- (17) Q:  $p_1$  probably disintegrated and  $p_2$  followed, do you agree?
- A1: #Well, I don't think that, therefore,  $p_2$  disintegrated. Neither one did.
- A2: #Well, I don't think that  $p_2$  disintegrated too. Neither one did.

### 3.2 Projection

Projection Equation (11.3) predicts in particular that projection does not occur when the presupposition addresses the QUD. Some observations have been mentioned as direct counter-examples to this claim. They are listed below.

(18) Q: Does Paul have a strong will?

A: Well, he didn't quit smoking for instance.

(Adapted from Jayez 2010)

(19) Q: Did you go shopping?

A: I didn't realize that the store was closed today.

(Koev 2017: ex. (15))

(20) Q: Which neighbor kid keeps ringing John's doorbell and running away?

A: John is beside himself with frustration. He hasn't figured out it's Billy.

(Peters 2016: ex. (32))

(21) Q: When did Finland become independent?

A: It must have been after the Bolsheviks came to power in Russia but before Lenin died in 1924.

(Karttunen 2016: ex. (28))

In this sequence of examples, the various relevant presuppositions seem to address the QUD and nonetheless project. However, some qualification is in order. Concerning (19), the intended interpretation of the answer is somewhat unclear. Does it mean (a) 'I went shopping because I had not realized the store was closed' or (b) 'I could not go shopping because the store was closed'? In case (b), the presupposition ('The store was closed today') addresses the QUD but the main content seems to be partly irrelevant and it is not clear whether the interpretation is quite natural. In case (a), the projected presupposition is not relevant to the QUD because the latter is something like 'did you try to get something at the store' and *not* 'did you get something at the store' (this would be case (b)). To get a more convincing example, one could modify the dialog in (19) as in (22), where the two pieces of information in A contribute an explanation for the complex event mentioned in Q: the responder accounts for her going to the store by the fact that she did not think that the store was closed (main content) and for her quick return by the fact that the store is closed (presupposition).

(22) Q: Why on earth did you do a round trip in ten minutes with the car?

A: I had not realized the store is closed today.

(21) too is problematic as a purported counterexample. The two presuppositions do not address the QUD in themselves, as evidenced by the oddness of (23).

(23) Q: When did Finland become independent?

A: #The Bolsheviks came to power in Russia and Lenin died in 1924.

To make sense of (21), the temporal relations have to be taken into account, but they are part of the main content and do not project. In (24), the existence of a complex event where, first, the Bolsheviks came to power and, afterwards, Finland became independent, is negated. So, the general form of such examples is  $\neg AFTER(e_1, e_2)$  and what possibly projects is just  $e_1$  or  $e_2$ .

(24) It is not the case that Finland became independent after the Bolsheviks came to power in Russia.

It is in general difficult to construct counterexamples based on negative operators. However, there is a natural class of counterexamples illustrated in (25). The general idea behind such examples is to have a dialog where the responder accounts for some fact by contemplating the possibility for an agent of being aware of some pleasant or unpleasant state of affairs.<sup>5</sup>

(25) Q: Why is Paul happy/depressed?

A1: He might have realized that Mary is going to marry/leave him.

A2: Did he realize that Mary is going to marry/leave him?

So, it seems that the systematic connection between addressing the QUD and not projecting is, at best, a statistically dominant feature, but not an intrinsic characteristic of projection phenomena. Three other kinds of objection have been raised against the QUD-based approach.

The first one concerns the interpretation of dialogs like (26). Simons et al. present that example as an illustration of the fact that a non-addressing QUD content can project. The presupposition that raw vegetables are edible is not an explanation of the responder's surprise and, as a result, it can project. Karttunen (2016) notes that replacing *know* by *believe* or *think* gives exactly the same result because the proposition that one can eat raw vegetables is common ground (in our

<sup>5</sup>The A2-type answers are subquestions in the sense of Roberts 2012.

culture) and will project no matter what. He argues that the original example does not in itself provide support to the authors' thesis. Elaborating on this, let us consider (27-A1). Since the proposition that the earth is flat is irrelevant to the QUD, it should project, which, of course, creates a conflict with the common ground proposition that the earth is not flat. So, the difference between (27-A1) and (27-A2) is correctly predicted. However, in order to demonstrate that the prediction depends exclusively on the non-relevance to the QUD and not, for instance, on a strong preference for projection with *know*, one has to show that, when the embedded clause *does* address the QUD, non-projection is systematically, or at least preferentially, observed for the same verb. This type of problem leads us to the next question, which concerns the class of verbs called *factives*.

(26) Q: What most surprised you about the first graders?

A: They didn't know that you can eat raw vegetables.

(Simons et al. 2011: ex. (15))

(27) Q: What most surprised you about the first graders?

A1: #In contrast to many children of the same age, they didn't know that the earth is flat.

A2: In contrast to many children of the same age, they didn't believe that the earth is flat.

Karttunen (1971) had identified a subclass of *semi-factive* verbs where projection is less systematic than with emotive factives (*regret, be surprised that*, etc.) or epistemic factives (*know, realize*, etc.). Semi-factives include for instance *observe, see, be aware, notice, remember*. There is a rather sharp contrast between full factives and semi-factives in certain types of configuration mentioned in the QUD-based approach.

(28) Q: Was Paul at work yesterday?

A1: Probably not. His boss did not observe/see/notice he was in his office.

A2: Probably not. His boss (is not aware/doesn't remember) he was in his office.

A3: ??Probably not. His boss doesn't know/regret he was in his office.

A4: Probably yes. His boss didn't realize he was in his office.

In contrast to A1 and A2, where the most likely interpretations exclude projection, projection is obligatory with A3 and A4, resulting in a hardly interpretable answer in A3.<sup>6</sup> It is difficult to reconcile this kind

<sup>6</sup>See also examples (38) and (39) in Peters (2016).

of observation with the reasoning proposed by Simons et al. (2011: ex. (24)) that, in an appropriate context, projection can be blocked with ‘*x* does not know that *p*’ because, if *p* was the case, *x* would know it.<sup>7</sup> Although the inference makes perfect sense, it cannot override the preference for projection with full factives. French is interesting because it marks the difference in projection with mood and register. In (29), the indicative version A1 is strongly deviant whereas the subjunctive version A2 is possible but quite formal.<sup>8</sup> The subjunctive marking is clearly related to ignorance or uncertainty, as attested by cognate constructions like *que je sache*<sub>PRES-SUBJ</sub>, meaning *to my knowledge, as far as I know* and *pour autant que je sache* (lit. ‘as much as I know<sub>PRES-SUBJ</sub>’). This a well-known association in many languages (Godard 2013, Giannakidou 2016) and it is striking that languages like French exploit it to *conventionalize* projection for full factives, which indicates that projection cannot be reduced to pragmatics.

(29) Q: Est-ce que Paul était au travail hier?  
 INTERROG-MARKER Paul was at work yesterday?  
 ‘Was Paul at work yesterday?’

A1: \*Je ne sais pas qu’ il était  
 I EXPL-NEG know-PRES-IND not that he was  
 dans son bureau.  
 in his office.  
 ‘I don’t know he was in his office.’

A2: Je ne sache pas qu’ il était  
 I EXPL-NEG know-PRES-SUBJ not that he was  
 dans son bureau.  
 in his office.  
 ‘I have no evidence that he was in his office.’

The last problem concerns the ‘knowability’ property of the complement of factives. First, one might argue, like Karttunen, that such a property involves some circularity. If we can only know knowable, hence true-to-fact, contents, the veridical character of such attitudes seems to derive from the very concept of knowing, independently from the linguistic term. Otherwise, we would have to assume that the relation between truth and knowledge is conventionalized in language, which would amount to saying that *know* presupposes the truth of the

<sup>7</sup>Note also that the reasoning makes crucial use of the main content.

<sup>8</sup>The subjunctive is also possible in the embedded clause with semi-factives and excludes projection: *Je n’ai pas observé qu’il [ait été]*<sub>PAST-SUBJ</sub> *dans son bureau*, ‘I didn’t observe he was in his office’.

known content, and drive us back to the phenomenon we are supposed to explain. If language just provides a label for the concept of knowing, and this concept entails the truth of the object of knowledge, we have to posit a difference in some dimension between knowing and observing, seeing, etc., possibly on the basis of semantic differences between the verbs, a program which has yet to be carried out, see Turri (2013) for a related problem.

## 4 The Role of the Main Content

Taking stock, we have seen that the QUD-based approach faces two kinds of problems: (i) The attempt to predict projection on the basis of the absence of Obligatory Local Effect is not (entirely) successful (see *too* and similar discourse markers) and (ii) the claim that QUD-addressing content cannot project is not supported by certain observations.

However, rejecting the QUD-based approach altogether is not the move we would recommend, because the approach offers two important ideas that advance our understanding of projection. There is indeed a strong connection between Local Effect and projection as well as between QUD-addressing and projection properties. In this section, we propose to diagnose the source of the difficulties of the QUD-based approach and to reconfigure it accordingly, in order to preserve the major insights on which it is based.

### 4.1 When is Projection ‘Obligatory’?

The operators that apply to sentences containing presupposition triggers and make projection manifest (negation, interrogation, possibility modals) can target two different types of semantic form. For convenience, we represent the main content-presupposition combination as a pair of the form  $\langle \text{main content, presupposition} \rangle$ . When a trigger combines with its complement (modulo argument structure) or target (for modifiers), there are basically two possibilities: either the ‘logical’ form (= combinatory potential) of the trigger puts semantic constraints on the main content or it does not.<sup>9</sup> To illustrate, consider the forms associated with *stop*, *know*, *only* and *too* as NP modifiers. Superficially, they are similar, i.e. they are functional lambda-terms expecting a property ( $P$ ) or a proposition ( $p$ ) at some point and returning a (possibly quantified) main content-presupposition pair where the property or proposition occurs on the left and on the right. So, they have a general form:  $\dots \lambda X \dots \mathcal{Q}\langle \phi(X), \psi(X) \rangle$ , where  $X$  is of type  $P$  or  $p$  and  $\mathcal{Q}$

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<sup>9</sup>We follow here Jayez (2015) but we modify his criterion of *separation*.

is a (possibly empty) sequence of quantifiers. We present the forms in a simple (syntax : semantics) categorial format.

- (30) a. **stop**:  $(NP \setminus S) / VP : \lambda P \lambda x . \exists t \langle \text{after}(t, \neg P(x)), \text{before}(t, P(x)) \rangle$   
 b. **know**:  $(NP \setminus S) / \text{that-S} : \lambda p \lambda x . \langle \text{is-certain}(x, p), p \rangle$   
 c. **only-NP**:  $(S / VP) / NP : \lambda x \lambda P . \langle \forall y ((y \neq x) \Rightarrow \neg P(y)), P(x) \rangle$   
 d. **too**:  $NP \setminus (S / VP) : \lambda x \lambda P . \langle P(x), \exists y (y \neq x \wedge P(x)) \rangle$ .

On closer look, the structure for *too* is different because there is no constraint on  $P$  in the main content part. The constraint  $\exists y (y \neq x \wedge P(x))$  is in the presupposition part. We get a similar picture with a discourse marker like *therefore*, for which the consequence constraint is in the presupposition part (31).

- (31) **therefore** :  $S / S : \lambda p . \langle p, \exists p' \text{ Consequence-of}(p, p') \rangle$

Empirically, it seems that non-projection is difficult whenever the main content part does not contain any particular semantic constraint.<sup>10</sup> If this is on the right track, we would expect that, if there are triggers that lack any information ‘about’ the main content, they strongly tend to project. Indeed, such triggers exist and can help us to clarify the notion of aboutness we need.

A particularly striking case concerns *hic et nunc particles* (HNPs) studied for French in Dargnat (2019). HNPs are those discourse markers that refer to circumstantial information only available at utterance time, such as mental events affecting the speaker, external events or discourse events. They signal mainly emotional reactions or epistemic stages of the speaker, action scheduling, hesitations and reformulations. They have specific prosodic features, which help identify them automatically in speech corpora (Dargnat et al. 2015). Standard examples are *Aïe!*, *Ouille!* (*Ouch!*), *bon* ( $\approx$ well), *hein* ( $\approx$ right?), *tu parles!* (*You bet!*), *Zut!* (*Oops!*), etc. HNPs fall in the more general category of *use-conditional* items, that is, items that must be characterized by their usage, not by their contribution to the truth conditions of the sentence (Gutzman 2015).

Like most conventional implicature triggers, HNPs systematically project but, in addition, they cannot be embedded in a non-immediate perspective, in contrast with some expressives, like those in (32). In this respect they could be considered as Anti Local Effect items, which occupy the endpoint of the scale shown in Table 1.

<sup>10</sup>We ignore here the metalinguistic cases, where one manipulates the focus, as noted in Section 3.1(v).

- (32) a. A l'époque, Paul pensait que son fichu métier  
 At that time Paul thought that his damn job  
 finirait par le tuer.  
 would end up by him kill-INF.  
 'At that time, Paul thought that his damn job  
 would end up killing him.'
- b. #A l'époque, Paul pensait que son métier  
 At that time Paul thought that his job  
 finirait par le tuer merde!  
 would end up by him kill-INF shit!  
 'At that time, Paul thought that his damn job  
 would end up killing him shit!'

**Table 1** A (very partial) scale of projection.

Category	Main Content	Presup.	Conventional Impl.	HNP
<b>Obl. Loc. Eff.</b>	—	Yes in general	Variable	No
<b>Projection</b>	—	Variable	Robust	Obligatory

In order to illustrate more concretely the inner workings of HNPs, we describe the case of the particle *quoi* in sentence-final position. *Quoi* signals that the speaker has no better option than to use the sentence to which the particle is adjoined. This is illustrated in (33).

- (33) Et puis je commence à chanter des trucs un peu hyper cul-cul  
**quoi** et genre euh j'écris le texte et je le regarde je le lis je dis  
 putain mais c'est trop cul-cul **quoi** (...) Mais mon dieu la meuf  
 c'est une psychopathe **quoi**  
 (Izia Higelin, interview on France Info, 11 July 2012)  
 'Next, I start singing things that are a bit corny QUOI and like  
 uh I write the lyrics I look at them and I say fuck! it's too corny  
 QUOI Oh my God, the chick, she is a psychopath QUOI'

It is often associated with an implicature of reluctance: although the speaker is not spontaneously willing to say that  $p$ , for instance because she is afraid of sounding blunt, rude or somehow offensive, she nonetheless resolves to do so because she is unable to find a more adequate characterization. One might assimilate *quoi* to a standard conventional implicature trigger, assigning to it a structure like (34), where we use a triple  $\langle$  main content, presupposition, conventional implicature  $\rangle$  and a scale  $\sigma$  of relative adequacy for propositions.

- (34) **quoi**:  $S \setminus S : \lambda p \cdot \langle p, NIL, \forall p' (p \geq_{\sigma} p') \rangle$

However, this puts *quoi* on a par with expressives like *the damn N*, evaluative/epistemic adverbs like *fortunately* or *unexpectedly*, or German epistemic modal particles like *ja*, *doch*, etc. (Karagjosova 2003), and fails to capture its *hic et nunc* specificity. Actually, although *quoi* is syntactically a sentential adjunct, it is not a direct modifier of the proposition expressed by S, and, so, is not reducible to (34) or similar forms. *Quoi* communicates that the speaker *decides* to use the clause she uses and does not draw attention to the content of the clause per se but to the *process* of selection of the clause. This is what makes *quoi* an HNP, an element which refers to an event of mental elaboration in the spatio-temporal immediate vicinity of an utterance. More generally, having HNPs bearing on utterance-proximal events accounts for a pervasive intuition in the literature on interjections, namely that interjections encode reactions to the situation and not (just) judgments (Ducrot 1984, Wharton 2003, Świątkowska 2006).

We assume that HNPs are associated with ‘objective’ updates. Standard updates are usually partitioned into different types. The main content is associated with an update of the information state representing the common ground, the non-main content with an update of another type of information state. These differences can be related to different intentions, an intention to influence the addressees and make them modify the common ground vs. an intention of publicizing some piece of information, speaker-centered (expressives, evaluative adverbs) or not (non-restrictive relative clauses, presuppositions).<sup>11</sup> HNPs do not correspond to communicative intentions. They are not ‘invisible’, though. They are part of the linguistic code and can be processed by addressees but they are not conventionally associated with a communicative intention, although intentions of obtaining some effect can be inferentially ascribed to a speaker in a given context. In terms of update, HNPs are comparable to external events, observable phenomena produced and possibly controlled by the speaker, accessible but not addressed to the hearers. We propose that HNPs give rise to automatic updates of the common ground, like any other mutually manifest event and can be described by their conditions of use (which keeps them in the category of conventional markers).<sup>12</sup>

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<sup>11</sup>We remain agnostic as to whether a rendition in terms of particular (non-propositional) updates (see e.g. Murray 2014) or communicative intentions, along the lines of Ginzburg (2012), is to be preferred.

<sup>12</sup>To wit, for *quoi*, the semantics would be:  $\lambda p. \langle p, NIL, utter(speaker, p, t_u) \wedge BEL(speaker, \forall p'(p \geq_S p')) \rangle$ , where  $t_u$  is utterance time. The conventional implicature includes the action of voicing  $p$  at utterance time as well as a belief about the relative value of  $p$ .

To sum up, there are at least two cases. (i) A part of the meaning of the form affects the main content and non-projection can occur, (ii) the meaning does not affect the main content and non-projection is strongly restricted or virtually impossible (HNPs).

## 4.2 Skipping the Main Content?

In this section, we argue that some of the difficulties noted for the QUD-based approach stem from an absence of distinction between the *at-issue* content and the main content. As its name indicates, the *at-issue* content corresponds to that part of the content which addresses the QUD. It is perfectly true, as already acknowledged in (Ducrot 1972), that the presupposition can address the QUD. More importantly, it is perfectly true, *contra* Ducrot, that the presupposition can be in such cases the more important piece of information (Simons 2007), as in (3-A2), repeated below. Finally, it is also perfectly true that, in many cases, a presupposition that addresses the QUD does *not* project because this would conflict with the most plausible interpretation of the conversational exchange, as in (4).

(3) Q: Who broke the window pane?

A1: It's Paul.

A2: Anna noticed it's Paul.

(4) Q: Is it Paul who broke the window pane?

A: I didn't notice that Paul was around.

However, in Section 3.2 we mentioned some examples where the presupposition is *at-issue* and projects. We can account for them in exactly the same terms as for (4): assuming that the presupposition projects delivers the right interpretation. At first sight, this suggests that all that matters is pragmatics. Whether projection or non-projection is preferred depends on which one contributes to the most plausible scenario for addressing the QUD. In fact, this simple approach has to be seriously qualified.

First, as noted in Section 3.2 with respect to Karttunen's (1971) observations on factives, lexical preferences can complicate the picture and pragmatics does not override them. Second, as argued in Jayez (2015) from a different perspective, QUD-addressing is subject to Ducrot's (1972) *Linking Law* (*loi d'enchaînement* in French), which says, roughly speaking, that one cannot attach a constituent to the presupposition *alone* through a causal or opposition discourse relation, or, equivalently, that one cannot 'shunt' the main content with such relations. For example, whereas (35a) is a perfectly normal sentence where not having

caviar (the main content) is explained by the price of caviar, (35b) is obscure and cannot mean that Paul had caviar because he liked it.

- (35) a. Paul stopped having caviar for breakfast because it's expensive.  
 b. #Paul stopped having caviar for breakfast because he liked it.

The function of any relevant answer to the QUD is to influence the probability of some subset of alternatives. In the spirit of Ducrot, we assume that, whatever the contextual conditions are, (i) the main content *must* play some role in this process and (ii), in contrast, this involvement is not obligatory for the non-main content, in particular the presupposition. This difference is apparent in examples like (36). Answer A1 entails that the responder is not subscribed and presupposes that she was subscribed four years ago. The presupposition is not relevant to Q. It is not felt as totally irrelevant (*a non sequitur*) because it could address a potential question (when did you stop your subscription?) about a super-topic (the general status of the addressee's subscription). However, it is not connected to the explicit topic (the existence of a current subscription) or any other explicit piece of information and constitutes a sort of supplement. Replacing A1 with *I am not subscribed* is possible without altering the question-answer relation. A2 is more difficult to interpret because, although the presupposition addresses the QUD, the main content is not easily related to Q. A possible interpretation is that, for some reason, the responder adds a supplemental indication of her state of mind about the situation, but this could be perceived as peripheral with respect to the QUD. A3 sounds irrelevant. The presupposition addresses the QUD but the main content hangs around without contributing to making a possible answer to the QUD more or less plausible.<sup>13</sup>

- (36) Q: Are you currently subscribed to the journal? It would get you a discount for the proceedings.  
 A1: I stopped my subscription four years ago.  
 A2: I am glad I am not subscribed.  
 A3: #My friends don't know/know I am subscribed.

<sup>13</sup>Spelling out what 'plausible' means requires that one develop a notion of (probabilistic) dependence. Probabilistic dependence could be analyzed for instance in the framework of *confirmation theory* (Fitelson 2001), which states that  $p$  is positively (resp. negatively) relevant to  $p'$  with respect to some function  $\phi$  over probabilities iff  $\phi(\Pr(p), \Pr(p')) > 0$  (resp.  $< 0$ ). Classic examples for  $\phi$  include  $\Pr(p'|p) - \Pr(p')$  or the log-likelihood difference  $\log(\Pr(p|p')/\Pr(p|-p'))$ . We will not discuss the different limit conditions and possible options here.

(37) *Generalized Linking Law* (GLL)

If a constituent A is attached to another constituent Q by a Question-Answer relation, the main content of A must be relevant to a subset of the alternatives associated with Q.

This asymmetry between main content and non-main content distinguishes between a purely pragmatic approach, which would predict –correctly– that the network of probabilistic dependencies varies with context, and a semantic approach, which makes room for context, but posits a fundamental asymmetry between main content and non-main content. What are the consequences for projection? Along the lines of Ducrot and given the GLL, the main content is always at issue (relevant to the QUD) and, given the Projection Equation (11.3), never projects. The presupposition can address the QUD. In that case, it can project or not, depending on the plausibility preferences (pragmatics), the lexical constraints (semantics, see the case of full factives) and the general requirement that the main content must address the QUD (GLL). In particular it is possible for a presupposition to address the QUD and project when the main content-presupposition combination is relevant to the QUD, see the examples discussed in Section 3.2. However, when a non-main content content does not address the QUD, it *must* project because there is nothing to interfere with the default projective behavior of non-main content. So, at-issueness determines the necessity of non-projection, not the necessity of projection: QUD-irrelevance entails projection but QUD-relevance does not entail non-projection.

## 5 Conclusion

In this paper, we have provided a critical examination of a recent and influential theory about projection, the QUD-based theory. Our goal in carrying out this task was not to evaluate the theory in itself but rather to contribute to an analysis of pragmatics-driven approaches, which the QUD-based approach illustrates in a powerful and articulate way.

We have reached the conclusion that the main claim of the QUD-based approach, i.e. an equivalence between non-projection and QUD-addressing, has to be weakened and replaced by an entailment from not addressing the QUD to projecting. In other terms, the content which does not address the QUD *must* project and that which addresses the QUD *can* project, depending on a set of (sometimes complex) factors.

In doing so, we have retained a fundamental insight of the QUD-based theory, the importance of context and, more precisely, of the relation to the QUD in predicting projection. In a nutshell, a presup-

position projects or not according to what the most plausible QUD-addressing scenario is. We have also claimed (Section 4.1) that projection is strongly preferred or obligatory whenever the trigger makes no specific contribution to the main content in addition to the minimal compositional structure (see the case of HNPs analyzed in Section 4.1). Taken together, this aspect and the equivalence between not-addressing the QUD and necessarily projecting suggests that semantic material that has no direct (addressing) or indirect (via lexical content) access to the QUD projects most of the time. More work is needed to assess the robustness of this hypothesis. This entails, in particular, extending the empirical observations to include more complex conversational exchanges and a richer notion of QUD, see Ginzburg (2012).

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## References

- Ajmer, Karin & Anne Marie Simon-Vandenberg. 2003. The discourse particle *well* and its equivalents in Swedish and Dutch. *Linguistics* 41(6):1123–1161.
- Beaver, David & Brady Z. Clark. 2008. *Sense and Sensitivity. How Focus Determines Meaning*. Chichester: Wiley-Blackwell.
- Beaver, David I., Craig Roberts, Mandy Simons, & Judith Tonhauser. 2017. Questions under discussion: Where information structure meets projective content. *Annual Review of Linguistics* 3:265–284.
- Dargnat, Mathilde. 2019. Les particules discursives. In A. Abeillé & D. Godard, eds., *Grande Grammaire du Français*. Arles (France): Actes Sud. Forthcoming.
- Dargnat, Mathilde, Katarina Bartkova, & Denis Jouvét. 2015. Discourse particles in French: Prosodic parameters extraction and analysis. In A.-H. Dediu, C. Martín-Vide, & K. Vicsi, eds., *Statistical Language and Speech Processing III*, pages 40–49. Cham: Springer.
- Ducrot, Oswald. 1972. *Dire et ne pas Dire*. Paris: Hermann.
- Ducrot, Oswald. 1984. *Le Dire et le Dit*. Paris: Éditions de Minuit.
- Fitelson, Branden. 2001. *Studies in Bayesian Confirmation Theory*. Ph.D. thesis, University of Wisconsin, Madison.
- Geurts, Bart. 1999. *Presuppositions and Pronouns*, vol. 3 of *Current Research in the Semantics/Pragmatics Interface*. Oxford: Elsevier.
- Giannakidou, Anastasia. 2016. The subjunctive as evaluation and non-veridicality. In J. Błaszczak, A. Giannakidou, D. Klimek-Jankowska, & K. Migdalski, eds., *Mood, Aspect and Modality Revisited. New Answers to Old Questions*. University of Chicago Press.
- Ginzburg, Jonathan. 2012. *The Interactive Stance. Meaning for Conversation*. Oxford: Oxford University Press.
- Godard, Danièle. 2013. Indicative and subjunctive mood in complement clauses. Formal semantics and grammar writing. In C. Piñón, ed., *Empirical Issues in Syntax and Semantics*, vol. 9, pages 129–148. Available at [http://www.cssp.cnrs.fr/eiss9/eiss9\\_godard.pdf](http://www.cssp.cnrs.fr/eiss9/eiss9_godard.pdf).
- Grice, Paul. 1975. Logic and conversation. In D. Davidson & G. Harman, eds., *The Logic of Grammar*, pages 64–75. Encino (CA): Dickenson.
- Grice, Paul. 1978. Further notes on logic and conversation. In P. Cole, ed., *Pragmatics*, vol. 9 of *Syntax and Semantics*, pages 113–127. New York: Academic Press.
- Gutzman, Daniel. 2015. *Use-Conditional Meaning. Studies in Multidimensional Semantics*. Oxford: Oxford University Press.
- Jayez, Jacques. 2010. Projective meaning and attachment. In *Logic, Language and Meaning. Revised Selected Papers of the 17th Amsterdam Colloquium, Amsterdam 2009*, no. 6042 in Lecture Notes in Artificial Intelligence, pages 325–334. Berlin: Springer.

- Jayez, Jacques. 2015. Orthogonality and presuppositions. A Bayesian perspective. In H. Zeevat & H.-C. Schmidt, eds., *Bayesian Natural Language Semantics and Pragmatics*, vol. 2 of *Language, Cognition and Mind*, pages 145–178. Cham (Switzerland): Springer International Publishing.
- Karagjosova, Elena. 2003. Modal particles and the common ground: Meaning and function of German *ja*, *doch*, *eben/halt* and *auch*. In P. Kühnlein, H. Rieser, & H. Zeevat, eds., *Perspectives on Dialogue in the New Millennium*, vol. 114, pages 335–349. Amsterdam: John Benjamins.
- Karttunen, Lauri. 1971. Some observations on factivity. *Papers in Linguistics* 4(1):55–69.
- Karttunen, Lauri. 2016. Presupposition: What went wrong. In M. Moroney, C.-R. Little, J. Collard, & D. Burgdorf, eds., *Proceedings of Semantics and Linguistic Theory (SALT) 26*, pages 705–731.
- Koev, Todor. 2017. At-issueness does not predict projection. Unpublished Ms., available at [https://todorkoev.weebly.com/uploads/5/2/5/1/52510397/at-issueness\\_does\\_not\\_predict\\_projection.pdf](https://todorkoev.weebly.com/uploads/5/2/5/1/52510397/at-issueness_does_not_predict_projection.pdf).
- Langendoen, D. Terence & Harris B. Savin. 1971. The projection problem for presuppositions. In C. J. Fillmore & D. T. Langendoen, eds., *Studies in Linguistic Semantics*, pages 54–60. New York: Holt, Rinehart and Winston.
- Murray, Sarah E. 2014. Varieties of update. *Semantics and Pragmatics* 7(Article 2):1–53.
- Peters, Stanley. 2016. Speaker commitments: Presupposition. In M. Moroney, C.-R. Little, J. Collard, & D. Burgdorf, eds., *Proceedings of Semantics and Linguistic Theory (SALT) 26*, pages 1083–1098.
- Potts, Christopher. 2005. *The Logic of Conventional Implicatures*. Oxford: Oxford University Press.
- Roberts, Craige. 2012. Information structure in discourse: Towards an integrated formal theory of pragmatics. *Semantics and Pragmatics* 5(6):1–69. This is a reissue of a 1998 version to be found at <http://ling.osu.edu/~croberts/infostr.pdf>.
- Simons, Mandy. 2007. Observations on embedding verbs, evidentiality, and presupposition. *Lingua* 117:1034–1056.
- Simons, Mandy, David Beaver, Craige Roberts, & Judith Tonhauser. 2017. The best question: Explaining the projection behavior of factives. *Discourse Processes* 54(3):187–206.
- Simons, Mandy, Judith Tonhauser, David Beaver, & Craige Roberts. 2011. What projects and why. In N. Li & D. Lutz, eds., *Semantics and Linguistic Theory (SALT) 20*, pages 309–327. eLanguage.
- Stalnaker, Robert. 1974. Pragmatic presuppositions. In M. K. Munitz & P. Unger, eds., *Semantics and Philosophy*, pages 197–214. New York: New York University Press.
- Świątkowska, Marcela. 2006. L'interjection: entre deixis et anaphore. *Languages* 161(1):47–56.

- Tonhauser, Judith, David Beaver, Craige Roberts, & Mandy Simons. 2013. Toward a taxonomy of projective content. *Language* 89:66–109.
- Turri, John. 2013. The test of truth: An experimental investigation of the norm of assertion. *Cognition* 129:279–291.
- van der Sandt, Rob A. 1992. Presupposition projection as anaphora resolution. *Journal of Semantics* 9:333–377.
- Wharton, Tim. 2003. Interjections, language, and the ‘showing/saying’ continuum. *Pragmatics and Cognition* 11:39–91.

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## References

- Abbott, Clifford. 1984. Two Feminine Genders in Oneida. *Anthropological Linguistics* 26:125–137.
- Abeillé, Anne & Danièle Godard. 1996. La complémentation des auxiliaires français. *Langages* 122:32–61.
- Abeillé, Anne & Danièle Godard. 1999. A Lexical Approach to Quantifier Floating in French. In Gert Webelhuth, Jean-Pierre Koenig & Andreas Kathol (eds.), *Lexical and Constructional Aspects of Linguistic Explanation*, 81–96. Stanford, CA: CSLI Publications.
- Abeillé, Anne & Danièle Godard. 2002. The Syntactic Structure of French Auxiliaries. *Language* 78:404–452.
- Abeillé, Anne, Danièle Godard, Philip [H.] Miller & Ivan A. Sag. 1997. French Bounded Dependencies. In Sergio Balari & Luca Dini (eds.), *Romance in HPSG*, 1–54. Stanford, CA: CSLI Publications.
- Abeillé, Anne, Danièle Godard & Frédéric Sabio. 2008. Two Types of NP Preposing in French. In Stefan Müller (ed.), *Proceedings of the 15th International Conference on Head-driven Phrase Structure Grammar*, 306–324. Stanford, CA: CSLI Publications.
- Ades, Antony & Mark Steedman. 1982. On the Order of Words. *Linguistics and Philosophy* 6:517–558.
- Aissen, Judith. 1999. Markedness and Subject Choice in Optimality Theory. *Natural Language & Linguistic Theory* 17(4):673–711.
- Ajmer, Karin & Anne Marie Simon-Vandenberg. 2003. The Discourse Particle *well* and its Equivalents in Swedish and Dutch. *Linguistics* 41(6):1123–1161.

- Alotaibi, Mansour. 2015. *Wh-questions in Modern Standard Arabic: Minimalist and HPSG Approaches*. Ph.D. dissertation, University of Essex.
- Akmajian, Adrian. 1984. Sentence Types and the Form–Function Fit. *Natural Language & Linguistic Theory* 2(1):1–23.
- Anward, Jan. 1981. *Functions of Passive and Impersonal Constructions: A Case Study from Swedish*. Ph.D. dissertation, Uppsala University.
- Aoun, Joseph Elabbas Benmamoun & Lina Choueiri. 2010. *The Syntax of Arabic*. Cambridge: Cambridge University Press.
- Ariel, Mira. 1988. Referring and Accessibility. *Journal of Linguistics* 24:67–87.
- Arnold, Doug & Robert D. Borsley. 2014. On the Analysis of English Exhaustive Conditionals. In Sefan Müller (ed.), *Proceedings of the 21st International Conference on Head-driven Phrase Structure Grammar*, 27–47. Stanford, CA: CSLI Publications.
- Asher, Nicholas & Alex Lascarides. 2003. *Logics of Conversation*. Cambridge: Cambridge University Press.
- Audibert-Gibier, Monique. 1992. Étude de l'accord du participe passé sur des corpus de fran,çais parlé. *Langage et société* 61:7–30.
- Avram, Larisa. 2015. A Mirativity Subjunctive in Romanian. In Nicolae Mocanu (ed.), *Inspre și dinspre Cluj. Contribuții lingvistice. Omagiu profesorului G.G. Neamțu la 70 de ani*, 62–74. Cluj: Editura Scriptor – Argonaut.
- Bach, Emon, Eloise Jelinek, Angelika Kratzer & Barbara Partee (eds.). 1995. *Quantification in Natural Languages*. Dordrecht: Springer.
- Baker, Mark. 1996. *The Polysynthesis Parameter*. Oxford: Oxford University Press.
- Baker, Mark. 1997. Thematic Roles and Syntactic Structure. In Liliane Haegeman (ed.), *Elements of Grammar: Handbook in Generative Syntax*, 73–127. Dordrecht: Kluwer.
- Barbu, Ana-Maria. 1999. Complexul verbal. *Studii și cercetări lingvistice* 1:39–84.
- Barwise, Jon. 1989. *The Situation in Logic* (CSLI Lecture Notes). Stanford: CSLI Publications.
- Barwise, John & Robin Cooper. 1981. Generalized Quantifiers and Natural Language. *Linguistics and Philosophy* 4:159–219.
- Beaver, David I. & Brady Z. Clark. 2008. *Sense and Sensitivity: How Focus Determines Meaning*. Chichester: Wiley-Blackwell.
- Beaver, David I., Craig Roberts, Mandy Simons & Judith Tonhauser. 2017. Questions under Discussion: Where Information Structure Meets Projective Content. *Annual Review of Linguistics* 3:265–284.
- Becker, Martin. 2010. Mood in Rumanian. In Björn Rothstein & Rolf Thieroff (eds.), *Mood in the Languages of Europe*, 251–270. Amsterdam & Philadelphia, PA: John Benjamins.

- Bender, Emily M. 2001. *Syntactic Variation and Linguistic Competence: The Case of AAVE Copula Absence*. Ph.D. dissertation, Stanford University.
- Bennett Michael. 1978. Demonstratives and Indexicals in Montague Grammar. *Synthese* 39(1):1–80. *Logic and Linguistics*, Part II, 1–80.
- Betarte, Gustavo & Alvaro Tasistro. 1998. Extension of Martin-Löf's Type Theory with Record Types and Subtyping. In Giovanni Sambin & Jan M. Smith (eds.), *Twenty-Five Years of Constructive Type Theory* (Oxford Logic Guides 36), 21–39. Oxford: Oxford University Press.
- Beysade, Claire & Jean-Marie Marandin. 2006. The Speech Act Assignment Problem Revisited: Disentangling Speaker's Commitment from Speaker's Call on Addressee. *Empirical Studies in Syntax and Semantics* 6:37–68.
- Bilbâie, Gabriela. 2011. *Grammaire des constructions elliptiques. Une étude comparative des phrases sans verbe en roumain et en français*. Ph.D. dissertation, Université Paris Diderot – Paris 7.
- Bilbâie, Gabriela & Alexandru Mardale. 2018. The Romanian Subjunctive in a Balkan Perspective. In Iliyana Krapova & Brian Joseph (eds.), *Balkan Syntax and (Universal) Principles of Grammar* (Trends in Linguistics: Studies and Monograph series 285), 278–314. Berlin: Mouton de Gruyter.
- Bittner, Maria & Naja Trondhjøm. 2008. Quantification as Reference: Evidence from Q-verbs. In Lisa Matthewson (ed.), *Quantification: A Cross-linguistic Perspective*, 7–66. Bingley, UK: Emerald.
- Blanche-Benveniste, Claire. 2006. L'accord des participes passés en français parlé contemporain. In Céline Guillot, Serge Heiden & Sophie Prévost (eds.), *À la quête du sens: Études littéraires, historiques et linguistiques en hommage à Christiane Marchello-Nizia*, 33–47. Lyon: ENS Éditions.
- Bonami, Olivier 2015. Periphrasis as Collocation. *Morphology* 25:63–110.
- Bonami, Olivier, Robert D. Borsley & Maggie O. Tallerman. 2016. On Pseudo-non-finite Clauses in Welsh, *Proceedings of the Joint 2016 Conference on Head-driven Phrase Structure Grammar and Lexical Functional Grammar*, 104–124. Stanford, CA: CSLI Publications.
- Bonami, Olivier & Gilles Boyé. 2007. French pronominal clitics and the design of Paradigm Function Morphology. In Geert Booij, Luca Ducceschi, Bernard Fradin, Angela Ralli, Emiliano Guevara & Sergio Scalise (eds.), *Proceedings of the Fifth Mediterranean Morphology Meeting* (MMM5), 291–322. Università degli Studi di Bologna.
- Bonami, Olivier, Danièle Godard & Jean-Marie Marandin. 1999. Constituency and Word Order in French Subject Inversion. In Gosse Bouma, Erhard Hinrichs, Geert-Jan M. Kruijff & Richard Oehrle (eds.), *Constraints and*

- Resources in Natural Language Syntax and Semantics*, 21–40. Stanford, CA: CSLI Publications.
- Börjars, Kersti, Elisabet Engdahl & Maia Andréasson. 2003. Subject and Object in Swedish. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG '03 Conference*, 43–58. Stanford, CA: CSLI Publications.
- Börjars, Kersti & Nigel Vincent. 2005. Position versus Function in Scandinavian Presentational Constructions. In Miriam Butt & Tracy Holloway King (eds.), *Proceedings of the LFG '05 Conference*, 54–72. Stanford, CA: CSLI Publications.
- Broadwell, George Aaron. 2006. *A Choctaw Reference Grammar*. Lincoln, NE: University of Nebraska Press.
- Bruce, Kim & Donka Farkas. 2007. Context Structure for Dialogues. Ms., Pomona College & UC Santa Cruz.
- Caponigro, Ivano & Jon Sprouse. 2007. Rhetorical Questions as Questions. In Estella Puig-Waldmüller (ed.), *Proceedings of Sinn und Bedeutung 11*, 121–133. Barcelona: Universitat Pompeu Fabra.
- Carlson, Greg. N. 1977. *Reference to Kinds in English*. Ph.D. thesis, University of Massachusetts Amherst.
- Chung, Sandra & William Ladusaw. 2003. *Restriction and Saturation*. Cambridge, MA: MIT Press.
- Clark, Herbert. 1996. *Using Language*. Cambridge: Cambridge University Press.
- Cooper, Robin. 2012. Type Theory and Semantics in Flux. In Ruth Kempson, Tim Fernando & Nicholas Asher (eds.), *Handbook of the Philosophy of Science*, vol. 14: *Philosophy of Linguistics*, 271–323. Amsterdam: Elsevier.
- Cooper, Robin. 2013. Update Conditions and Intensionality in a Type-theoretic Approach to Dialogue Semantics. In Raquel Fernández & Amy Isard (eds.), *Proceedings of the 17th Workshop on the Semantics and Pragmatics of Dialogue (SEMDIAL 2013 DialDam)*, 15–24. Amsterdam: University of Amsterdam.
- Cooper, Robin. 2019. Type Theory and Language: From Perception to Linguistic Communication. Ms., University of Gothenburg. [Book draft]
- Cooper, Robin, Simon Dobnik, Staffan Larsson & Shalom Lappin. 2015. Probabilistic Type Theory and Natural Language Semantics. *Linguistic Issues in Language Technology* 10, 000–000.
- Cooper, Robin & Jonathan Ginzburg. 2015. Type Theory with Records for Natural Language Semantics. In Shalom Lappin & Chris Fox (eds.), *Handbook of Contemporary Semantic Theory*, 2nd edn., 375–407. Oxford: Blackwell.
- Coquand, Thierry, Randy Pollack & Makoto Takeyama. 2003. A Logical Framework with Dependent Types. *Fundamenta Informaticae* 20:1–21.
- Corazza, Eros. 2002. Temporal Indexicals and Temporal Tems. *Synthese* 130(3):441–460.

- Corazza, Eros. 2004. On the Alleged Ambiguity of ‘now’ and ‘here’. *Synthese* 138:289–313.
- Corblin, Francis & Tijana Asic. 2016. Une nouvelle approche de l’opposition *ici/là* et *ovde/tu*. *Travaux de linguistique* 72:29–48.
- Creissels, Denis, Sokhna Bao Diop, Alain-Christian Bassène, Mame Thierno Cissé, Alexander Cobbinah, El Hadji Dieye, Dame Ndao, Sylvie Nouguiervoisin, Nicolas Quint, Marie Renaudier, Adjaratou Sall & Guillaume Seeger. 2015. L’impersonnalité dans les langues de la région sénégalaise. *Africana Linguistica* 21:29–86.
- Creissels, Denis & Séckou Biaye. 2016. *Le balant ganja: phonologie, morphosyntaxe, liste lexicale, textes*. Dakar: IFAN.
- Creissels, Denis & Pierre Sambou. 2013. *Le mandinka: phonologie, grammaire, textes*. Paris: Karthala.
- Croft, William. 2012. *Verbs: Aspect and Causal Structure*. Oxford: Oxford University Press.
- Dalrymple, Mary & Irena Nikolaeva. 2011. *Objects and Information Structure*. Cambridge: Cambridge University Press.
- Dargnat, Mathilde. 2019. Les particules discursives. In Anne Abeillé & Danièle Godard (eds.), *Grande Grammaire du Français*. Arles (France): Actes Sud. Forthcoming.
- Dargnat, Mathilde, Katarina Bartkova & Denis Jouvét. 2015. Discourse Particles in French: Prosodic Parameters Extraction and Analysis. In Adrian-Horia Dediu, Carlos Martín-Vide & Klára Vicsi (eds.), *Statistical Language and Speech Processing: Third International Conference, SLSP 2015, Budapest, Hungary, November 24–26, 2015, Proceedings* (Lecture Notes in Computer Science), 40–49. Cham: Springer.
- Dekker, Paul, Maria Aloni & Alastair Butler. 2007. The Semantics and Pragmatics of Questions. In Paul Dekker, Maria Aloni & Alastair Butler (eds.), *Questions in Dynamic Semantics*, 1–40. Oxford: Elsevier.
- Demberg, Vera. 2012. Incremental Derivations in CCG. *Proceedings of the 11th International Workshop on Tree Adjoining Grammars and Related Formalisms (TAG+11)*, 198–206. Paris.
- Demberg, Vera, Frank Keller & Alexander Koller. 2013. Incremental, Predictive Parsing with Psycholinguistically Motivated Tree-adjoining Grammar. *Computational Linguistics* 39(4):1025–1066.
- Diaz, Thomas, Jean-Pierre Koenig & Karin Michelson. To appear. Oneida Prepronominal Prefixes in Information-based Morphology. *Morphology*.
- Diderichsen, Paul. 1946. *Elementær Dansk Grammatik* [Elementary Danish grammar]. København: Gyldendal.

- Ducrot, Oswald. 1972. *Dire et ne pas Dire*. Paris: Hermann.
- Ducrot, Oswald. 1984. *Le Dire et le Dit*. Paris: Éditions de Minuit.
- Engdahl, Elisabet. 2006. Semantic and Syntactic Patterns in Swedish Passives. In Benjamin Lyngfelt & Torgrim Solstad (eds.), *Demoting the Agent: Passive, Middle and Other Voice Phenomena*, 21–45. Amsterdam: John Benjamins.
- Engdahl, Elisabet, Maia Andréasson & Kersti Börjars. 2004. Word Order in the Swedish Midfield: An OT Approach. In Fred Karlsson (ed.), *Papers from the 20th Scandinavian Conference of Linguistics*, 1–13. Helsinki: University of Helsinki, Department of General Linguistics.
- Erteschik-Shir, Nomi. 2007. *Information Structure: The Syntax–Discourse Interface*. Oxford: Oxford University Press.
- Erteschik-Shir, Nomi. 2019. Stage Topics and their Architecture. In Valéria Molnár, Verner Egerland & Susanne Winkler (eds.), *Architecture of Topic*, 223–248. Berlin: de Gruyter Mouton.
- Fălăuș, Anamaria. 2014. Presumptive Mood, Factivity and Epistemic Indefinites in Romanian. *Borealis: An International Journal of Hispanic Linguistics* 3(2):105–124.
- Farkas, Donka. 1985. *Intensional Descriptions and the Romance Subjunctive Mood*. New York: Garland.
- Farkas, Donka. 1992. On the Semantics of Subjunctive Complements. In Paul Hirschbühler & Konrad Koerner (eds.), *Romance Languages and Modern Linguistic Theory: Papers from the 20th Linguistic Symposium on Romance Languages (LSRL XX)*, 69–104. Amsterdam & Philadelphia, PA: John Benjamins.
- Farkas, Donka. 2003. Assertion, Belief and Mood Choice. Presented at the Workshop on Conditional and Unconditional Modality, Vienna. (Available at <http://people.ucsc.edu/~farkas/papers/mood.pdf>, 1 March 2018)
- Farkas, Donka. 2018. Non-canonical Questions: The Case of *oare* Interrogatives. Presented at the University of Bucharest, 28–29 September 2018.
- Farkas Donka. & Kim Bruce. 2010. On Reacting to Assertions and Polar Questions. *Journal of Semantics* 27:81–118.
- Fassi Fehri, Abdelkader. 1993. *Issues in the Structure of Arabic Clauses and Words*. Dordrecht: Kluwer.
- Fernández, Raquel. 2006. *Non-sentential Utterances in Dialogue: Classification, Resolution and Use*. Ph.D. thesis, King's College London.
- Fernández, Raquel & Jonathan Ginzburg. 2002. Non-sentential Utterances: A Corpus Study. *Traitement automatique des langues. Dialogue* 43(2): 13–42.

- Fitelson, Branden. 2001. *Studies in Bayesian Confirmation Theory*. Ph.D. thesis, University of Wisconsin–Madison.
- Frâncu, Constantin. 2010. *Conjunctivul românesc și raporturile lui cu alte moduri*. Iași: Casa Editorială Demiurg.
- Frey, Werner. 2006. Contrast and Movement to the German Prefield. In Valéria Molnár & Sten Winkler (eds.), *The Architecture of Focus*, 235–264. Berlin: Mouton de Gruyter.
- Gardent, Claire & Michael Kohlhase. 1997. Computing Parallelism in Discourse. *Proceedings of the Fifteenth International Joint Conference on Artificial Intelligence (IJCAI-97)*, vol. 2, 1016–1021. Nagoya.
- Gaucher, Damien. 2013. L'accord du participe passé en français parlé en tant que variable sociolinguistique. In Fabrice Marsac & Jean-Christophe Pellat (eds.), *Le participe passé entre accords et désaccords*, 115–129. Strasbourg: Presses Universitaires de Strasbourg.
- Gasdar, Gerald. 1981. Speech Act Assignment. In Aravind Joshi, Bonnie Weber & Ivan A. Sag (eds.), *Elements of Discourse Understanding*, 64–83. Cambridge: Cambridge University Press.
- Geurts, Bart. 1999. *Presuppositions and Pronouns* (Current Research in the Semantics/Pragmatics Interface 3). Oxford: Elsevier.
- Giannakidou, Anastasia. 2009. The Dependency of the Subjunctive Revisited: Temporal Semantics and Polarity. *Lingua* 119:1883–1908.
- Giannakidou, Anastasia. 2016. Evaluative Subjunctive and Nonveridicality. In Joanna Blaszczak, Anastasia Giannakidou, Dorota Klimek-Jankowska & Krzysztof Migdalski (eds.), *Mood, Aspect, Modality Revisited: New Answers to Old Questions*, 177–217. Chicago, IL: University of Chicago Press.
- Ginzburg, Jonathan. 1994. An Update Semantics for Dialogue. In Harry Bunt (ed.), *Proceedings of the 1st International Workshop on Computational Semantics*. Tilburg: ITK, Tilburg University.
- Ginzburg, Jonathan. 2012. *The Interactive Stance: Meaning for Conversation*. Oxford: Oxford University Press.
- Ginzburg, Jonathan, Raquel Fernández & David Schlangen. 2014. Disfluencies as Intra-utterance Dialogue Moves. *Semantics and Pragmatics* 7(9):1–64.
- Ginzburg, Jonathan & Dimitra Kolliakou. 2009. Answers without Questions: The Emergence of Fragments in Child Language. *Journal of Linguistics* 45:641–673.
- Ginzburg, Jonathan & Massimo Poesio. 2016. Grammar is a System that Characterizes Talk in Interaction. *Frontiers in Psychology* 7:1938.

- Ginzburg, Jonathan & Ivan A. Sag. 2000. *Interrogative Investigations: The Form, Meaning and Use of English Interrogatives*. Stanford, CA: CSLI Publications.
- Giorgi, Alessandra & Fabio Pianesi. 1997. *Tense and Aspect: From Semantics to Morphosyntax*. Oxford: Oxford University Press.
- Giurgea, Ion. 2018. The Romanian Interrogative Particle *oare* in a Comparative and Historical Perspective. In Gabriela Pană Dindelegan, Adina Dragomirescu, Irina Nicula & Alexandru Nicolae (eds.), *Comparative and Diachronic Perspectives on Romance Syntax*, 401–432. Newcastle: Cambridge Scholars Publishing.
- Godard, Danièle. 2013. Indicative and Subjunctive Mood in Complement Clauses: Formal Semantics and Grammar Writing. In Christopher Piñón (ed.), *Empirical Issues in Syntax and Semantics*, vol. 9, 129–148. Paris: Centre National de la Recherche Scientifique. (Available at [http://www.cssp.cnrs.fr/eiss9/eiss9\\_godard.pdf](http://www.cssp.cnrs.fr/eiss9/eiss9_godard.pdf), 14 September 2019)
- Grice, Paul. 1975. Logic and conversation. In Donald Davidson & Gilbert Harman (eds.), *The Logic of Grammar*, 64–75. Encino, CA: Dickenson.
- Grice, Paul. 1978. Further notes on logic and conversation. In Peter Cole (ed.), *Pragmatics* (Syntax and Semantics 9), 113–127. New York: Academic Press.
- Groenendijk, Jeroen & Martin Stokhof. 1984. *Studies in the Semantics of Questions and the Pragmatics of Answers*. Amsterdam: Akademish Proefschrift.
- Grohmann, Kleanthes. 2000. Null Modals in Germanic (and Romance): Infinitival Exclamatives. *The Belgian Journal of Linguistics* 14:43–61.
- Gundel, Jeanette K. & Thorstein Fretheim. 2004. Topic and Focus. In Laurence R. Horn & Gregory Ward (eds.), *The Handbook of Pragmatics* (Blackwell Handbooks in Linguistics 16), 175–196. Malden, MA: Blackwell.
- Gundel, Jeanette K., Nancy Hedberg & Ron Zacharski. 1993. Cognitive Status and the Form of Referring Expressions in Discourse. *Language* 69(2):274–307.
- Güngördü, Zelal. 1997. *Incremental Constraint-based Parsing: An Efficient Approach for Head-final Languages*. Ph.D. thesis, University of Edinburgh.
- Gutzman, Daniel. 2015. *Use-conditional Meaning: Studies in Multidimensional Semantics*. Oxford: Oxford University Press.
- Haddican, Bill & Anders Holmberg. 2018. Object Symmetry Effects in Germanic: Evidence for the Role of Case. *Natural Language & Linguistic Theory* 37:91–122.
- Hamblin, C. L. 1971. Mathematical Models of Dialogue. *Theoria* 37(2):130–155.
- Hamblin, C. L. 1973. Questions in Montague English. *Foundations of Language* 10:41–53.
- Haugereid, Petter & Mathieu Morey. 2012. A Left-branching Grammar Design for Incremental Parsing. In Stefan Müller (ed.), *Proceedings of the 19th Interna-*

- tional Conference on Head-driven Phrase Structure Grammar, Chungnam National University Daejeon*, 181–194. Stanford, CA: CSLI Publications.
- Heim, Irene & Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Oxford: Wiley-Blackwell.
- Hoekstra, Teun. 1984. *Transitivity: Grammatical Relations in Government-Binding Theory*. Dordrecht: Foris.
- Hough, Julian. 2015. *Modelling Incremental Self-repair Processing in Dialogue*. Ph.D. thesis, Queen Mary University of London.
- Hough, Julian, Casey Kennington, David Schlagen & Jonathan Ginzburg. 2015. Incremental Semantics for Dialogue Processing: Requirements, and a Comparison of Two Approaches. In Matthew Purver, Mehrnoosh Sadrzadeh & Matthew Stone (eds.), *Proceedings of the 11th International Conference on Computational Semantics (IWCS 2015)*, 206–216. London.
- Huddleston, Rodney. 2002. Clause Type and Illocutionary Force. In Rodney Huddleston & Geoffrey K. Pullum et al., *The Cambridge Grammar of the English Language*, 851–945. Cambridge: Cambridge University Press.
- Jayez, Jacques. 2010. Projective Meaning and Attachment. In Maria Aloni, Harald Bastiaanse, Tikitou de Jager & Katrin Schultz (eds.), *Logic, Language and Meaning: Revised Selected Papers of the 17th Amsterdam Colloquium, Amsterdam 2009* (Lecture Notes in Artificial Intelligence 6042), 325–334. Berlin: Springer.
- Jayez, Jacques. 2015. Orthogonality and Presuppositions: A Bayesian Perspective. In Henk Zeevat & Hans-Christian Schmidt (eds.), *Bayesian Natural Language Semantics and Pragmatics* (Language, Cognition and Mind 2), 145–178. Cham: Springer.
- Jespersen, Otto. 1924. *The Philosophy of Grammar*. London: Allen & Unwin.
- Jurafsky, Daniel & James H. Martin. 2009. *Speech and Language Processing*, 2nd edn. Englewood Cliffs, NJ: Prentice Hall.
- Kamp, Hans & Uwe Reyle. 1993. *From Discourse to Logic*. Dordrecht: Kluwer.
- Kaplan, David. 1989a. Demonstratives. In Joseph Almog, John Perry & Howard Wettstein (eds.), *Themes from Kaplan*, 481–563. New York: Oxford University Press.
- Kaplan, David. 1989b. Afterthoughts. In Joseph Almog, John Perry & Howard Wettstein (eds.), *Themes from Kaplan*, 565–614. New York: Oxford University Press.
- Karagjosova, Elena. 2003. Modal Particles and the Common Ground: Meaning and Function of German *ja*, *doch*, *eben/halt* and *auch*. In Peter Kühnlein, Hannes Rieser & Henk Zeevat (eds.), *Perspectives on Dialogue in the New*

- Millenium* (Pragmatics & Beyond New Series 114), 335–349. Amsterdam: John Benjamins.
- Karttunen, Lauri. 1971. Some Observations on Factivity. *Papers in Linguistics* 4(1):55–69.
- Karttunen, Lauri. 1977. Syntax and Semantics of Questions. *Linguistics and Philosophy* 30:669–690.
- Karttunen, Lauri. 2016. Presupposition: What Went Wrong. In Mary Moroney, Carol-Rose Little, Jacob Collard & Dan Burgdorf (eds.), *Proceedings of the 26th Semantics and Linguistic Theory Conference, Held at the University of Texas at Austin May 12–15, 2016* (SALT 26), 705–731.
- Kathol, Andreas. 2004. *Linear Syntax*. Oxford: Oxford University Press.
- Kayne, Richard S. 1975. *French Syntax: The Transformational Cycle*. Cambridge, MA: MIT Press.
- Keenan, Edward. 1976. Towards a Universal Definition of Subject. In Charles Li (ed.), *Subject and Topic*, 303–333. New York: Academic Press.
- Keenan, Edward & Denis Paperno (eds.). 2012. *Handbook and Quantifiers in Natural Language*, vol. 1. Dordrecht: Springer.
- Keenan, Edward & Jonathan Stavi. 1986. A Semantic Characterization of Natural Language Determiners. *Linguistics and Philosophy* 9:253–326.
- Kempson, Ruth, Ronnie Cann, Eleni Gregoromichelaki & Stergios Chatzikyriakidis. 2016. Language as Mechanisms for Interaction. *Theoretical Linguistics* 42(3–4):203–276.
- Kempson, Ruth, Wilfried Meyer-Viol & Dov Gabbay. 2001. *Dynamic Syntax: The Flow of Language Understanding*. Oxford: Blackwell.
- Koenig, Jean-Pierre & Karin Michelson. 2012. The (Non)universality of Syntactic Selection and Functional Application. In Christopher Piñón (ed.), *Empirical Studies in Syntax and Semantics*, vol. 9, 185–205. Paris: Centre National de la Recherche Scientifique.
- Koenig, Jean-Pierre & Karin Michelson. 2014. Deconstructing Syntax. In Stefan Müller (ed.), *Proceedings of the 21st International Conference on Head-driven Phrase Structure Grammar*, 114–134. Stanford, CA: CSLI Publications.
- Koenig, Jean-Pierre & Karin Michelson. 2015a. Invariance in Argument Realization: The Case of Iroquoian. *Language* 91:1–47.
- Koenig, Jean-Pierre & Karin Michelson. 2015b. Morphological Complexity à la Oneida. In Matthew Baerman & Greville G. Corbett (eds.), *Understanding and Measuring Morphological Complexity*, 69–92. Oxford: Oxford University Press.
- Koenig, Jean-Pierre & Karin Michelson. 2019. Extended Agreement in Oneida (Iroquoian). In András Bárány, Oliver Bond & Irina Nikolaeva (eds.), *Prominent Internal Possessors*, 131–162. Oxford: Oxford University Press.

- Koev, Todor. 2017. At-issueness does not Predict Projection. Ms., University of Konstanz. (Available at [https://todorkoev.weebly.com/uploads/5/2/5/1/52510397/at-issueness\\_does\\_not\\_predict\\_projection.pdf](https://todorkoev.weebly.com/uploads/5/2/5/1/52510397/at-issueness_does_not_predict_projection.pdf), 14 September 2019)
- Kranstedt, Alfred, Andy Lücking, Thies Pfeiffer, Hannes Rieser & Ipke Wachsmuth. 2006. Deixis: How to Determine Demonstrated Objects Using a Pointing Cone. In Sylvie Gibet, Nicolas Courty & Jean-François Kamp (eds.), *Proceedings of the 6th International Conference on Gesture in Human-Computer Interaction and Simulation*, 300–311. Berlin & Heidelberg: Springer.
- Krer, Mohamed. 2013. *Negation in Standard and Libyan Arabic: An HPSG Approach*. Ph.D. dissertation, University of Essex.
- Laanemets, Anu. 2012. *Passiv i moderne dansk, norsk og svensk. Et korpus-baseret studie af tale- og skriftsprog* [Passive in modern Danish, Norwegian and Swedish: A corpus based study of spoken and written language]. Ph.D. thesis, University of Tartu.
- Lambrecht, Knut. 1994. *Information Structure and Sentence Form*. Cambridge: Cambridge University Press.
- Landman, Fred. 1996. Plurality. In Shalom Lappin (ed.), *Handbook of Contemporary Semantic Theory*, 425–457. Oxford: Blackwell.
- Langendoen, D. Terence & Harris B. Savin. 1971. The Projection Problem for Presuppositions. In Charles J. Fillmore & D. Terence Langendoen (eds.), *Studies in Linguistic Semantics*, 4–60. New York: Holt, Rinehart and Winston.
- Lambrecht, Knud. 1990. What, me Worry? ‘Mad Magazine Sentences’ Revisited. *Proceedings of the Sixteenth Annual Meeting of the Berkeley Linguistics Society* (BLS 6), 215–228.
- Larsson, Staffan. 2002. *Issue based Dialogue Management*. Ph.D. thesis, Gothenburg University.
- Lau, Jey Han, Alexander Clark & Shalom Lappin. 2017. Grammaticality, Acceptability, and Probability: A Probabilistic View of Linguistic Knowledge. *Cognitive Science* 41(5):1202–1241.
- Lee, Felicia. 2008. On the Absence of Quantificational Determiners in San Lucas Quavini Zapotec. In Lisa Matthewson (ed.), *Quantification: A Cross-linguistic Perspective*, 353–381. Bingley, UK: Emerald.
- Leeman, Danielle. 2004. Les aventures de Max et Eve, j’ai aimé. À propos d’un C.O.D. “Canada Dry”. In Christian Leclère, Éric Laporte, Mireille Piot & Max Silberstein (eds.), *Lexique, Syntaxe et Lexique-Grammaire / Syntax, Lexis & Lexicon-Grammar: Papers in Honour of Maurice Gross* (Linguisti-

- cae *Investigationes Supplementa* 24), 405–412. Amsterdam: John Benjamins.
- Levelt, Willem J. 1983. Monitoring and Self-repair in Speech. *Cognition* 14(4):41–104.
- Lødrup, Helge. 1999. Linking and Optimality in the Norwegian Presentational Focus Construction. *Nordic Journal of Linguistics* 22:205–230.
- Lounsbury, Floyd. 1953. *Oneida Verb Morphology* (Yale University Publications in Anthropology 48). New Haven, CT: Yale University Press.
- Lücking, Andy & Jonathan Ginzburg. 2019. Not Few but All Quantifiers can be Negated: Towards a Referentially Transparent Semantics of Quantified Noun Phrases. *Proceedings of the 2019 Amsterdam Colloquium*. Amsterdam.
- Lücking, Andy, Thies Pfeiffer & Hannes Rieser. 2015. Pointing and Reference Reconsidered. *Journal of Pragmatics* 77:56–79.
- Lüpke, Friederike (ed.). Forthcoming. *The Oxford Guide to the Atlantic Languages of West Africa*. Oxford: Oxford University Press.
- Maling, Joan. 1988. Variations on a Theme: Existential Sentences in Swedish and Icelandic. In Benjamin Shaer (ed.), *Comparative Germanic Syntax*: Special issue of *McGill Working Papers in Linguistics* 6(1):168–191.
- Marandin, Jean-Marie. 2008. The Exclamative Clause Type in French. In Stefan Müller (ed.), *Proceedings of the 15th International Conference on Head-driven Phrase Structure Grammar*, 436–456. Stanford, CA: CSLI Publications.
- Martins, Ana Maria. 2016. The Portuguese Answering System: Affirmation, Negation and Denial. In Ana Maria Martins & Ernestina Carrilho (eds.), *Manual de linguística portuguesa* (Manuals of Romance Linguistics 16). Berlin & Boston, MA: Mouton de Gruyter.
- Matthewson, Lisa (ed.). 2008. *Quantification: A Cross-linguistic Perspective*. Bingley, UK: Emerald.
- Matthewson, Lisa. 2014. The Measurement of Semantic Complexity: How to Get by if your Language Lacks Generalized Quantifiers. In Fredrick J. Newmeyer & Laurel B. Preston (eds.), *Formal Complexity*, 241–263. Oxford: Oxford University Press.
- Michelson, Karin. 1991. Semantic Features of Agent and Patient Core Case Marking in Oneida. In Robert Van Valin (ed.), *Buffalo Papers in Linguistics*, vol. 91-II, 114–146. Buffalo, NY: Linguistics Department, University at Buffalo.
- Michelson, Karin. 2015. Gender in Oneida. In Marli Hellinger & Heiko Motschenbacher (eds.), *Gender across Languages*, 277–301. Amsterdam: John Benjamins.
- Michelson, Karin, Norma Kennedy & Mercy Doxtator. 2016. *Glimpses of Oneida Life*. Toronto: University of Toronto Press.

- Mikkelsen, Line. 2002. Reanalyzing the Definiteness Effect: Evidence from Danish. *Working Papers in Scandinavian Syntax* 69:1–75.
- Miller, Philip H. 1992. *Clitics and Constituents in Phrase Structure Grammar*. New York: Garland.
- Miller, Philip H. & Ivan A. Sag. 1997. French clitic movement without clitics or movement. *Natural Language & Linguistic Theory* 15:573–639.
- Milsark, Gary L. 1974. *Existential Sentences in English*. Ph.D. dissertation, MIT.
- Milward, David. 1994. Dynamic Dependency Grammar. *Linguistics and Philosophy* 17:561–405.
- Milward, David & Robin Cooper. 1994. Incremental Interpretation: Applications, Theory, and Relationship to Dynamic Semantics. *COLING '94: Proceedings of the 15th Conference on Computational linguistics*, vol. 2, 748–754. Stroudsburg, PA: Association for Computational Linguistics (ACL).
- Monachesi, Paola. 2005. *The Verbal Complex in Romance: A Case Study in Grammatical Interfaces*. Oxford: Oxford University Press.
- Montague, Richard. 1974. The Proper Treatment of Quantification in Ordinary English, in R. H. Thomason (ed.), *Formal Philosophy: Selected Papers of Richard Montague*, 247–270. New Haven, CT: Yale University Press.
- Morrill, Glyn. 2000. Incremental Processing and Acceptability. *Computational Linguistics* 26(3):319–338.
- Mount, Allyson. 2008. The Impurity of ‘Pure’ Indexicals. *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition*, 138(2):193–209.
- Müller, Stefan. 2013. *Head-driven Phrase Structure Grammar: Eine Einführung*. Tübingen: Stauffenburg.
- Murray, Sarah E. 2014. Varieties of Update. *Semantics and Pragmatics* 7(2):53 pp. doi:<http://dx.doi.org/10.3765/sp.7.2>.
- Nunberg, Geoffrey. 1993. Indexicality and Deixis. *Linguistics and Philosophy* 16:1–43.
- Onea, Edgar. 2016. *Potential Questions at the Semantics–Pragmatics Interface* (Current Research in the Semantics/Pragmatics Interface 33). Leiden & Boston, MA: Brill.
- Paperno, Denis & Edward Keenan (eds.). 2017. *Handbook and Quantifiers in Natural Language*, vol. 2. Dordrecht: Springer.
- Partee, Barbara 1986. Ambiguous Pseudoclefts with Unambiguous *Be*. In Stephen Berman, Jae-Woong Choe & Joyce McDonough (eds.), *Proceedings of the North Eastern Linguistic Society (NELS) 16*, 354–366. Amherst, MA: GLSA.

- Partee, Barbara. 2014. A Brief History of the Syntax–Semantics Interface in Western Formal Linguistics. *Semantics–Syntax Interface* 1(1):1–21.
- Pavlidou, Theodossia. 1991. Cooperation and the Choice of Linguistic Means: Some Evidence from the Use of the Subjunctive in Modern Greek. *Journal of Pragmatics* 15:11–42.
- Peters, Stanley. 2016. Speaker Commitments: Presupposition. In Mary Moroney, Carol-Rose Little, Jacob Collard & Dan Burgdorf (eds.), *Proceedings of the 26th Semantics and Linguistic Theory Conference, Held at the University of Texas at Austin May 12–15, 2016* (SALT 26), 1083–1098.
- Peters, Stanley & Dag Westerståhl. 2006. *Quantifiers in Language and Logic*. Oxford: Clarendon Press.
- Peterson, Tyler. 2013. Rethinking Mirativity: The Expression and Implication of Surprise. Ms., Arizona State University.
- Perry, John. 1997. Indexicals and Demonstratives. In Bob Hale & Crispin Wright (eds.), *Companion to the Philosophy of Language*, 586–612. Oxford: Blackwells.
- Perry, John. 2001. *Reference and Reflexivity*. Stanford, CA: CSLI Publications.
- Platzack, Christer. 1983. Existential sentences in English, Swedish, German and Icelandic. In Fred Karlsson (ed.), *Papers from the Seventh Scandinavian Conference of Linguistics*, 80–100. Helsinki: University of Helsinki, Department of General Linguistics.
- Platzack, Christer. 2005. The Object of Verbs like *help* and an Apparent Violation of UTAH. In Hans Broekhuis, Norbert Corver, Riny Huybregts, Ursula Kleinhenz & Jan Koster (eds.), *Organizing Grammar: Linguistic Studies in Honor of Henk van Riemsdijk*, 483–494. Berlin: Mouton de Gruyter.
- Platzack, Christer. 2009. Towards a Minimal Argument Structure. In Petra Bernardini, Verner Egerland & Jonas Granfeldt (eds.), *Mélanges plurilingues offerts à Suzanne Schlyter à l'occasion de son 75ème anniversaire*, 353–371. Lund: Lund University, Språk- och litteraturcentrum.
- Platzack, Christer. 2010. *Den fantastiska grammatiken. En minimalistisk beskrivning av svenskan* [The fantastic grammar: A minimalist description of Swedish]. Stockholm: Norstedts.
- Poesio, Massimo & Hannes Rieser. 2010. (Prolegomena to a Theory of) Completions, Continuations, and Coordination in Dialogue. *Dialogue and Discourse* 1:1–89.
- Pollard, Carl & Ivan A. Sag. 1994. *Head-driven Phrase Structure Grammar*. Chicago, IL & Stanford, CA: University of Chicago Press & CSLI.
- Portner, Paul. 2016. On the Relation Between Verbal Mood and Sentence Mood. Ms., Georgetown University.
- Potts, Christopher. 2005. *The Logic of Conventional Implicatures*. Oxford: Oxford University Press.

- Pozdniakov, Konstantin & Guillaume Segerer. Forthcoming. Classification of Atlantic languages. In Friederike Lüpke (ed.), *The Oxford Guide to the Atlantic Languages of West Africa*. Oxford: Oxford University Press.
- Predelli, Stefano. 1998. Utterance, Interpretation, and the Logic of Indexicals. *Mind and Language* 13(3):400–414.
- Prince, Ellen. 1981. Toward a Taxonomy of Given–New Information. In Peter Cole (ed.), *Radical Pragmatics*, 223–255. New York: Academic Press.
- Prince, Ellen. 1992. The ZPG Letter: Subjects, Definiteness, and Information Status. In William C. Mann & Sandra A. Thompson (eds.), *Discourse Description: Diverse Linguistic Analyses of a Fund-raising Text*, 295–326. Amsterdam: John Benjamins.
- Purver, Matthew. 2006. Clarie: Handling Clarification Requests in a Dialogue System. *Research on Language & Computation* 4(2):259–288.
- Purver, Matthew, Arash Eshghi & Julian Hough. 2011. Incremental Semantic Construction in a Dialogue System. In Johan Bos & Stephen Pulman (eds.), *Proceedings of the Proceedings of the Ninth International Conference on Computational Semantics (IWCS 2011)*, 365–369. Oxford.
- Purver, Matthew, Jonathan Ginzburg & Patrick Healey. 2001. On the Means for Clarification in Dialogue. *Proceedings of the Second SIGdial Workshop on Discourse and Dialogue (SIGdial01)*, 116–125.
- Quer, Josep. 2009. Mood Management: An Updated Toolkit. *Lingua* 119:1909–1913.
- Quine, Willard van. 1976. *The Ways of Paradox and Other Essays*, 2nd edn. Cambridge, MA: Harvard University Press.
- Ranta, Aarne. 1994. *Type Theoretical Grammar*. Oxford: Oxford University Press.
- Recanati, François. 2001. Are ‘here’ and ‘now’ indexicals? *Texte* 127(8):115–127.
- Reinhart, Tanya. 1981. Pragmatics and Linguistics: An Analysis of Sentence Topics. *Philosophica* 27(1):53–94.
- Richter, Frank & Manfred Sailer. 2004. Basic Concepts of Lexical Resource Semantics. *Collegium Logicum*, vol. 5: *ESSLLI 2003 Course Material*. Vienna: Kurt Gödel Society Wien.
- Riegel, Martin, Jean-Christophe Pellat & René Rioul. 1994. *Grammaire méthodique du français*. Paris: PUF.
- Roberts, Craige. 2012. Information Structure in Discourse: Towards an Integrated Formal Theory of Pragmatics. *Semantics and Pragmatics* 5(6):69 pp. doi:<http://dx.doi.org/10.3765/sp.5.6>. (A reissue of 1998 version at <http://ling.osu.edu/~croberts/infostr.pdf>, 14 September 2018)
- Rohde, Hannah. 2006. Rhetorical Questions as Redundant Interrogatives. *San Diego Linguistic Papers* 2:134–168.

- Rooth, Mats. 1992. A Theory of Focus Interpretation. *Natural Language Semantics* 1:75–116.
- Rouchota, Villy. 1994. *Na*-interrogatives in Modern Greek: Their Interpretation and Relevance. In Irene Philippaki-Warbuton, Katerina Nicolaidis & Maria Sifianou (eds.), *Themes in Greek Linguistics* (Current Issues in Linguistic Theory 117), 177–184. Amsterdam & Philadelphia, PA: John Benjamins.
- Sadock, Jerry. 1971. Queclaratives. In Douglas Adams, Mary Ann Campbell, Victor Cohen, Julie Lovins, Edward Maxwell, Carolyn Nygren & John Reighard (eds.), *Papers from the 7th Regional Meeting of the Chicago Linguistics Society* (CSL 7), 223–232. Chicago, IL: Chicago Linguistics Society.
- Sag, Ivan A. 1997. English Relative Clause Constructions. *Journal of Linguistics* 33:431–484.
- Sag, Ivan A., Gerald Gazdar, Thomas Wasow & Steven Weisler. 1985. Coordination and How to Distinguish Categories. *Natural Language & Linguistic Theory* 3:117–171.
- Sag, Ivan A. & Thomas Wasow. 2015. Flexible Processing and the Design of Grammar. *Journal of Psycholinguistic Research* 44(1):47–63.
- Salvi, Giampaolo. 1991. L'accordo. In Lorenzo Renzi, Giampaolo Salvi & Anna Cardinaletti (eds.), *Grande Grammatica Italiana di Consultazione*, vol. II: *I sintagmi verbale, aggettivale, avverbiale*, 227–244. Bologna: Il Mulino.
- Sato, Yo. 2011. Local Ambiguity, Search Strategies and Parsing in Dynamic Syntax. In Ruth Kempson, Eleni Gregoromichelaki & Christine Howes (eds.), *The Dynamics of Lexical Interfaces*, 205–233. Stanford, CA: CSLI Publications.
- Schlangen, David. 2004. Causes and Strategies for Requesting Clarification in Dialogue. *Proceedings of the 5th Workshop of the SIGdial Workshop on Discourse and Dialogue* (SIGdial04), 136–143.
- Schlangen, David & Gabriel Skantze. 2011. A General, Abstract Model of Incremental Dialogue Processing. *Dialogue & Discourse* 2(1):83–111.
- Schlesewsky, Matthias & Ina Bornkessel. 2004. On Incremental Interpretation: Degrees of Meaning Accessed during Sentence Comprehension. *Lingua* 114(9–10), 1213–1234.
- Sells, Peter. 2001. *Structure, Alignment and Optimality in Swedish*. Stanford, CA: CSLI Publications.
- Simons, Mandy. 2007. Observations on Embedding Verbs, Evidentiality, and Pre-supposition. *Lingua* 117:1034–1056.
- Simons, Mandy, David Beaver, Craig Roberts & Judith Tonhauser. 2017. The Best Question: Explaining the Projection Behavior of Factives. *Discourse Processes* 54(3):187–206.
- Simons, Mandy, Judith Tonhauser, David Beaver & Craig Roberts. 2011. What Projects and Why. In Nan Li & David Lutz (eds.), *Papers Presented at the*

- 20th Conference on Semantics and Linguistic Theory (SALT) Hosted by the Departments of Linguistics at the University of British Columbia and Simon Fraser University, in Vancouver, British Columbia on April 29 – May 1, 2010 (SALT 20), 309–327.
- Smith, Quentin. 1989. The Multiple Uses of Indexicals. *Synthese* 78:167–191.
- Stalnaker, Robert. 1974. Pragmatic Presuppositions. In Milton Karl Munitz & Peter K. Unger (eds.), *Semantics and Philosophy*, 197–214. New York: New York University Press.
- Stalnaker, Robert C. 1978. Assertion. In Peter Cole (ed.), *Pragmatics* (Syntax and Semantics 9), 315–332. New York: Academic Press.
- Stassen, Leon. 1985. *Comparison and Universal Grammar*. Oxford: Basil Blackwell.
- Steedman, Mark. 1996. *Surface Structure and Interpretation* (Linguistic Inquiry Monographs). Cambridge, MA: MIT Press.
- Stroh, Hans. 2002. *L'accord du participe passé en occitan rouergat et en français*. Rodez: Grelh Roergàs.
- Świątkowska, Marcela. 2006. L'interjection: entre deixis et anaphore. *Langages* 161(1):47–56.
- Teleman, Ulf, Staffan Hellberg & Erik Andersson. 1999. *Svenska Akademiens grammatik* [Swedish Academy grammar], 4 vols. Stockholm: Norstedts.
- Țenchea, Maria. 2001. *Le subjonctif dans les phrases indépendantes. Syntaxe et pragmatique*. Timișoara: Hestia.
- Tian, Ye, Takehiko Maruyama & Jonathan Ginzburg. 2017. Self Addressed Questions and Filled Pauses: A Cross-linguistic Investigation. *Journal of Psycholinguistic Research* 46(4):905–922.
- Tomić, Olga Mišeska (ed.). 2004. *Balkan Syntax and Semantics*. Amsterdam & Philadelphia, PA: John Benjamins.
- Tomić, Olga Mišeska. 2006. *Balkan Sprachbund Morpho-syntactic Features* (Studies in Natural Language and Linguistic Theory 67). Dordrecht: Springer.
- Tonhauser, Judith, David Beaver, Craige Roberts & Mandy Simons. 2013. Toward a Taxonomy of Projective Content. *Language* 89:66–109.
- Turri, John. 2013. The Test of Truth: An Experimental Investigation of the Norm of Assertion. *Cognition* 129:279–291.
- Vallduví, Enric. 2016. Information Structure. In Maria Aloni & Paul Dekker (eds.), *The Cambridge Handbook of Formal Semantics*, 728–754. Cambridge: Cambridge University Press.
- Vallduví, Enric & Elisabet Engdahl. 1996. The Linguistic Realization of Information Packaging. *Linguistics* 34(3):459–519.

- van der Sandt, Rob A. 1992. Presupposition Projection as Anaphora Resolution. *Journal of Semantics* 9:333–377.
- Van Eynde, Frank 2009. On the Copula: From a Fregean to a Montagovian Treatment, in Stefan Müller (ed.), *Proceedings of the 16th International Conference on Head-driven Phrase Structure Grammar*, 359–375. Stanford, CA: CSLI Publications.
- Vasilescu, Andra. 2013. Sentence types. In Gabriela Pană Dindelegan, *The Grammar of Romanian*. 537–550. Oxford: Oxford University Press.
- Vasilescu, Andra & Ileana Vântu. 2008. Tipuri de enunțuri în funcție de scopul comunicării. In Valeria Guțu-Romalo (ed.), *Gramatica limbii române*, vol. 2, 25–46. Bucharest: Editura Academiei.
- Viberg, Åke. 2008. Swedish Verbs of Perception from a Typological and Contrastive Perspective. In María de los Ángeles Gómez González, J. Lachlan Mackenzie & Elsa M. González Álvarez (eds.), *Languages and Cultures in Contrast and Comparison*, 123–172. Amsterdam: John Benjamins.
- Villalta, Elisabeth. 2007. *Context Dependence in the Interpretation of Questions and Subjunctives*. Ph.D. dissertation, University of Tübingen.
- Villalta, Elisabeth. 2008. Mood and Gradability: An Investigation of the Subjunctive Mood in Spanish. *Linguistics and Philosophy* 31(4):467–522.
- Vydrin, Valentin. 2009. On the Problem of the Proto-Mande Homeland. *Вопросы языкового родства – Journal of Language Relationship* 1:107–142.
- Wharton, Tim. 2003. Interjections, Language, and the ‘showing/saying’ Continuum. *Pragmatics and Cognition* 11:39–91.
- Williams, Edwin 1983. Semantic vs. Syntactic Categories. *Linguistics & Philosophy* 6:423–446.
- Wiltschko, Martina. 2016. The Essence of a Category: Lessons from the Subjunctive. In Joanna Błaszczak, Anastasia Giannakidou, Dorota Klimek-Jankowska & Krzysztof Migdalski (eds.), *Mood, Aspect, Modality Revisited: New Answers to Old Questions*, 218–254. Chicago, IL: University of Chicago Press.
- Zaenen, Annie, Elisabet Engdahl & Joan Maling. 2017. Subject Properties in Presentational Sentences in Icelandic and Swedish. In Victoria Rosén & Koenrad De Smedt (eds.), *The Very Model of a Modern Linguist: In Honor of Helge Dyvik* (Bergen Language and Linguistic Studies 8), 260–281. Bergen.
- Zafiu, Rodica. 2008. Modalizarea. In Valeria Guțu-Romalo (ed.), *Gramatica limbii române*, vol. 2, 702–726. Bucharest: Editura Academiei.
- Zafiu, Rodica. 2011. Observații asupra semanticii conjunctivului românesc. In Rodica Zafiu, Camelia Ușurelu & Helga Bogdan-Oprea (eds.), *Limba română. Ipostaze ale variației lingvistice*, 163–171. Bucharest: Editura Universității din București.

- Zafiu, Rodica. 2013. Modality and Evidentiality. In Gabriela Pană Dindelegan (ed.), *The Grammar of Romanian*, 575–584. Oxford: Oxford University Press.