

## Empathetic attitude reports<sup>1</sup>

Friederike Moltmann – CNRS-Université Côte d’Azur

**Abstract.** This paper will discuss a range of syntactic and semantic properties of what I call ‘empathetic attitude reports’, attitude reports which contain a direct or indirect object in addition to a clausal complement such as ‘I believe you that you will come back’ and ‘I understand you that you are not in the mood’. The paper will argue that empathetic attitude reports cannot be analysed in terms of two-place attitudinal relations but involve an essential interpersonal relation of trust or understanding.

**Keywords:** attitude reports, believing someone, content bearer, complement clauses, trust, understanding, faith, empathy

### 1. Introduction

When studying attitude reports, philosophers and linguists have generally focused on two-place attitude verbs, more precisely attitude verbs with just a clausal complement besides a subject DP. Such attitude verbs are generally taken to describe two-place relations between agents and propositions or other content bearers.<sup>2</sup> There are, however a range of attitude verbs that also take a DP as indirect or direct object besides a clausal complement. One type of such attitude verbs is what I call *empathetic attitude verbs*, since they generally involve some form of empathy, trust or understanding regarding the object referent. *Empathetic attitude reports* divide into two types: those with verbs of trust, as in (1), and those with verbs of understanding, as in (2):

#### Empathetic attitude verbs

##### *Verbs of trust*

- (1) a. I *believe* you that you will come back  
 b. I *trust* you that you will come back.

##### *Verbs of understanding*

- (2) a. I *hear* you that you cannot move.  
 b. I *understand* you that you are not in the mood.

(1) and (2) differ semantically in that (1) involves a relation of trust between the subject referent and the object referent, and (2) a relation of (physical or mental) understanding. But (1) and (2) also differ syntactically in that predicates of trust take an indirect object, whereas predicates of understanding take a direct object, as data from German indicate.

---

<sup>1</sup> I would like to thank the audience of *Sinn und Bedeutung* 26, 2021 as well as Kajsa Djärv and Leon Horsten for fruitful discussion of the material of this paper.

<sup>2</sup> The standard view on which attitude verbs that take clausal complement denote relations between agents and propositions is not uncontroversial. The term ‘two-place attitude verb’ should also cover the view on which the clausal complement is a predicate of content bearers such as beliefs (Moltmann 2014, Moulton 2015).

There is a temptation to try to reduce empathetic attitude reports to the familiar attitude reports with two-place attitudinal attitude verbs. On such an approach, recently pursued by Djärv (to appear), (1a) would consist in something like a conjunction of ‘I believe that you will come back’ and ‘You claim that you will come back’. Drawing in part on Anscombe’s (1979) discussion of ‘believing someone’, I will argue that empathetic attitude reports cannot be analysed in terms of two-place attitudinal relations, but rather involve an essential interpersonal relation between subject referent and object referent, based on trust or understanding.

In empathetic attitude reports, the clausal complements serves to give the content of two content bearers: a *background content bearer* (for example, a contextually given claim), and the content bearer described by the verb, the *described content bearer* (a belief, a state of trust, an auditory perception or an ‘understanding’). The object referent is the *intentional subject* of the background content bearer, the subject referent the intentional subject of the described content bearer. What is important is that the two content bearers are not independent of each other. The described content bearer is formed as a reaction to the background content bearer through the relevant interpersonal relation to the object referent.

I will propose a rather simple semantics of empathetic attitude reports, on which the attitude verb takes (at least) four arguments: the subject and object referents and two content bearers. I take the clausal complement in empathetic attitude reports to act semantically as a predicate of the two content bearers. This is in line with recent theories on which clausal complement semantically act as predicates of content bearers, rather than as referential terms standing for propositions (Moltmann 2014, 2017, 2020, 2021, Moulton 2015, Elliott 2017). But the view also receives specific support from the semantics of empathetic attitude reports. In this paper, I will not elaborate the syntactic basis of the proposed semantics and the relation of syntactic structure and lexical arguments. I will only make some remarks regarding the issues relevant for the syntax-semantics interface.

The paper will first present various properties of empathetic attitude reports and distinguish them from related constructions. It will then discuss a range of problems for the view on which empathetic attitude reports are about two two-place attitudinal relations. Finally, it will give a general semantics of empathetic attitude reports and make a few points about the syntax-semantics relationship.

## 2. Empathetic attitude reports: Basic syntactic and semantic properties

Empathetic attitude reports share a range of syntactic characteristics. One generalization about empathetic attitude reports is that the clausal complement is optional:

- (3) a. I believe you.
- b. I trust you.
- (4) a. I hear you.
- b. I understand you.

Yet, in the absence of a clausal complement, a content bearer of the sort of a claim is generally understood implicitly. Thus, the sentences (3a, 4a, b) in a particular utterance situation presuppose the existence of a particular claim made by the addressee in the context. This is not the case for (4b), though, which can be understood as conveying just a two-place interpersonal relationship.

There are significant differences between (1a, b) and (2a, b), though. First of all, the clausal complement of verbs of trust can be replaced by a light DP such as *something* and *that*, but not so the clausal complement of verbs of understanding:<sup>3</sup>

- (5) a. There is something I believe you.  
 b. I believe you that.
- (6) a. \* There is something I hear / understand you.  
 b. \* I hear you / understand you that.

This difference can be traced to the observation that in languages with dative case such as German, verbs of trust generally take dative complements, but verbs of understanding accusative complements:<sup>4</sup>

- (7) a. Ich glaube / vertraue dir, dass S.  
 I believe : trust you (dat) that S  
 ‘I believe / trust you that S.’  
 b. Ich glaube / vertraue es dir.  
 I believe / trust it (acc) you (dat)  
 ‘I believe / trust you that S.’
- (8) a. Ich hoere / verstehen dich, dass S.  
 I hear / understand you (acc) that S  
 ‘I hear / understand you that S.’  
 b. \* Ich hoere /verstehen dich es.  
 ‘I hear / understand you it.’

(7b) and (8b) illustrate that also in German, verbs of trust but not so verbs of understanding, permit light DPs to replace the clausal complement.<sup>5</sup> If the objects of verbs of understanding

<sup>3</sup> For more on light NPs like *something* and *that* see Moltmann (2022).

<sup>4</sup> Some German speakers accept replacement by full accusative DPs:

- (i) Ich glaube dir deine Behauptung.  
 ‘I believe you your claim (acc)’.

I do not have that judgment. But see Djärv (to appear), in whose analysis it does play a role.

<sup>5</sup> Another difference is that with a clausal complement present, (1a, b) permit the passive, which is impossible for (2a, b), illustrated for German below:

- (i) a. Dir wird geglaubt, dass du es schaffst..  
 ‘You are believed that you will manage.’  
 b. Dir wird vertraut, dass du zurueckkommst.  
 ‘You are believed that you will come back’.

are direct objects requiring accusative case, the impossibility of DPs in place of the clausal complements can be explained by the fact that two different DPs cannot occur in a syntactic position in which they can be assigned accusative case (which can be assigned to only one DP).<sup>6</sup>

### 3. The content bearers of empathetic attitude reports

Empathetic attitude reports involve two content bearers: a background content bearer with the object referent as intentional subject and the content bearer described by the main verb with the subject referent as intentional subject. What exactly are those content bearers and what relation do they stand in? First of all, the two content bearers play very different semantic roles. The content bearer of the object referent generally is a claim that needs understood from the nonlinguistic context, whether or not there is an overt clausal complement in the sentence specifying its content. The content bearer of the object referent is thus presupposed, as standard tests for presuppositions such as negation, conditionals, and questions make clear (Djäv, to appear):

- (9) a. I don't believe you that you that you have read the book.  
 b. If you don't trust Mary that that she will return, you should not wait for her.  
 c. If I did not hear you that you needed help, this is not my fault.  
 d. Did you understand her that she needs help?

- 
- (ii) a. Du wirst gehoert / verstanden.  
 'You are heard / understood'.  
 b. \* Du wirst gehoert / verstanden, dass du krank bist.  
 'You are heard / understood, that you are sick'.

<sup>6</sup> There are related constructions to empathetic attitude reports, which differ with respect to the presence of an implicit content bearer in the absence of the clausal complement. One of them is attitude reports with *praise* and *criticize*:

- (i) a. John criticized Mary that she should  
 b. John praised Mary that she managed to solve the problem  
 c. Mary admires John that he is so disciplined.

What distinguishes *praise* and *criticize* from *believe*, *trust*, and *hear* is that they involve only a content bearer produced by the subject referent and that the sentence will express existential quantification over such content bearers in the absence of a clausal complement:

- (ii) a. John criticized Mary.  
 b. John praised Mary.

Another case are attitude reports with *admire*, which in German, for example, permit clausal complements:

- (iii) Hans bewundert Maria, dass sie es schafft, erfolgreich zu sein.  
 'John admires Mary that she manages to be successful.'

Semantically, with *admire* the clause appears to have a function of merely modifying an interpersonal relation. By contrast, the interpersonal relation that can be described by *praise* and *criticize* needs to be grounded in particular illocutionary acts.

(9a) still implies that the addressee asserted that she read the book, and likewise for (9b-d). The content bearer of the object referent thus is part of the common ground and just shares its satisfaction conditions with that of the clausal complement. By contrast, the existence of the content bearer of the subject referent is part of the assertion of the sentence.

The content bearer of the object referent generally needs to have been put forward by a communicative act directed at the subject referent (Anscombe 1979). Thus, (1a) cannot be true if the addressee made the claim toward someone else other than the speaker. The restriction is apparent also when the empathetic attitude verb takes a DP as indirect object that stands for the content bearer, as in the German example below:

- (10) a. Ich glaube seiner Beteuerung, dass er unschuldig ist.  
 ‘I believe his assurance (dat.) that he is innocent.’  
 b. \* Ich glaube der Hypothese, dass Hans unschuldig ist.  
 ‘I believe the hypothesis (dat.) that John is innocent.’

The content bearer of the object referent need not be an illocutionary act. It can also be behavior by which the object referent aims to convey a particular message to the subject referent:

- (11) I believe you that you can lift the weights.

(11) could relate to acts of lifting the weights on the part of the addressee by which she aims to make the speaker believe that she can lift the weights.

Like illocutionary acts, such intentional behavior may involve pretense, which the subject referent may take to be grounds for not adopting the empathetic attitude, as when the addressee does not seem to manage to lift the weights below:

- (12) I don't believe you that you cannot lift the weights.

Nonverbal behavior as a content bearer would be difficult to account for on the traditional view on which *that*-clauses stand for propositions. It is unproblematic, however, on the view on which *that*-clauses act semantically as predicates of content bearers, giving their satisfaction conditions. Non-verbal physical activities with communicative intentions are content bearers that come with satisfaction conditions, and *that*-clauses as predicates can apply to them as well.

The attitude of trust or understanding of empathetic attitudes is generally formed as a reaction to the background content bearer, based on the recognition of the sincerity or truthfulness of the object referent in producing that content bearer. There may be a considerable time span, however, between the formation of the empathetic attitude and the production of the background content bearer:

- (13) After two years I finally believe John that he loves Mary.

(13) can relate to an assertion made by John two years ago that he loved Mary, as long as that assertion is meant to still be valid, and of course (13) can relate to repeated assertions by John over time in the past.

*Understand* actually displays different readings, which can be taken to reflect different content bearers. On one reading, *understand* just conveys the grasping the content of the perceived content bearer. On a second, *hermeneutic reading*, *understand* conveys an interpretation of that content. This reading can be enforced by manner adverbials such as *in that way* and *how*:<sup>7</sup>

- (14) a. I understood you in that way that you just do not want to come to the party.  
b. How did you understand him?

The complement clause on the hermeneutic reading aims to give the intended content of the background content bearer rather than its literal content. The two readings of *understand* can be construed as a matter of the kinds of content bearers that *understand* takes as argument. On the first reading, *understand* takes as its argument the perceived content bearer; on the second reading it applies to the intended meaning of that content bearer, more precisely, what is taken to be the intention the object referent has with the production of the content bearer.

To summarize so far, the background content bearer needs to have been produced by a communicative act directed toward the subject referent, but it need not be verbal and it need to coincide in time with the subject referent's empathetic attitude.

#### 4. The reductive analysis of empathetic attitude reports and its problems

Let me briefly discuss the kind of view I want to reject, namely on which empathetic attitude reports are reduced to two two-place attitudinal relations. Maintaining the distinction between described content bearer and background content bearer, (15) on such a view will be analysed as some sort of conjunction of (16a) and (16b) (Djärv, to appear):<sup>8</sup>

- (15) I believe you that S.  
(16) a. assertion: I believe that S  
b. presupposition: You asserted that S.

Let me call this the *reductive analysis* of empathetic attitude reports. How could such an analysis be obtained compositionally? Djärv (to appear) proposes that the object, being an oblique object, has the status of an applicative, which, semantically, means, roughly, that it adds the presupposition in (16b) to the meaning of the sentences (Pilkänen 2008). This

<sup>7</sup> German uses *so* on that reading :

- (i) Ich habe dich *so* verstanden, dass du einfach nicht zur Party kommen willst.  
'I understood you in that way that you just do not want to come to the party.'

<sup>8</sup> This is an informal version of the analysis proposed in Djärv (to appear).

proposal would not be applicable to verbs of understanding, which involve direct objects, i.e. (2a, b).

Let us set aside the question of the syntactic structure of empathetic attitude reports as the basis for a semantics along the lines of (16). Rather in what follows I will focus on a range of implausibilities and inadequacies of the reductive analysis.

#### 4.1. Syntactic implausibility of the reductive analysis

The reductive analysis is syntactically implausible since with some empathetic attitude verbs, the DP argument is obligatory, but not the clausal complement, which is not what the propositional analysis predicts. An example is German *vertrauen* ‘trust’:

- (17) \* Ich vertraue (ok dir), dass du das machst.  
 ‘I trust that (you) you will do that’.

On the propositional analysis, the verb should require a clausal complement but not the indirect object. In addition, all verbs in empathetic attitude reports can occur without the *that*-clause (*I believe / trust / hear / understand you*), which would be surprising for the reductive analysis since the clausal complement is generally not optional with two-place attitude verbs.

#### 4.2. The connection between the content bearers

A serious semantic inadequacy of the reductive analysis is that the two content bearers are not independent of each other. I may believe that you will come back already prior to your claim that you will; but that does not mean that I believe you that you will come back (Anscombe 1979). An empathetic attitude must be formed in response to the background content bearer.

What kind of relation is that response? It is not just a causal relation. My belief that Hans is German may have been triggered by John’s German accent when performing the background speech acts. But that does not make me believe Hans that he is German. Moreover, the background attitude cannot just be reason for forming the described attitude. My belief that Hans is German may have been motivated by hearing his claim that he is German, which made me verify its content on my own. But again that does not make me believe Hans that he is German. As Anscombe (1979, p. 145) nicely put it: ‘In teaching philosophy we do not hope that our pupils will believe us, but rather, that they will come to see that what we say is true -if it is.’ Anscombe (1979, p. 145) moreover points out that ‘one might think that believing someone is believing something on the strength of his saying that it is so. But even that is not right. For suppose I were convinced that B wished to deceive me, and would tell the opposite of what he believed, but that on the matter in hand B would be believing the opposite of the truth. By calculation on this, then, I believe what B says, on the strength of his saying it-but only in a comical sense can I be said to believe him.’ Rather the empathetic attitude needs to have been formed through faith in the addressee’s communicative, that is,

based on trust in the sincerity of that act. Thus the following conditions obtain for empathetic belief:<sup>9</sup>

- (18) For two agents  $x$ , and  $y$ , and content bearers  $d$  and  $d'$ ,  
 belief( $x$ ,  $d$ ,  $y$ ,  $d'$ ) iff  $x$  is the subject of  $d$ ,  $y$  the subject of  $d'$ , and  $d'$  is the result of a communicative act directed toward  $d$  and  $d$  is formed in response to  $d'$  based on trust in  $y$  as the subject of  $d'$ .

One way in which this condition manifests itself is that that  $DP_1$  *believes that*  $S$  may be true without  $DP_1$  *believes*  $DP_2$  *that*  $S$  being true. Consider:

- (19) a. I believe you that you will come back.  
 b. I believe that you will come back.

(19a) is false, but (19b) true, in a situation in which the speaker thinks the addressee intends to lie about returning, but would in the end come back anyway. The speaker's belief in (19a), but not in (19b), needs to be strictly based on her trust in the sincerity of the addressee's assertion. The same contrast holds between (20a) and (20b):

- (20) a. I understand you that you are not in the mood.  
 b. I understand that you are not in the mood.

Unlike for (20b), (20a) requires empathy with the addressee as the grounds for the speaker's understanding. The grasping of a proposition (perhaps on the basis of other evidence) won't be enough.

Verbs of understanding do not require faith; they may involve acceptance without belief. But like an attitude of trust, an attitude of understanding is formed as a reaction to the background content bearer, which needs to have been produced by a communicative act directed toward the subject.

### 4.3. The role of empathy

A third problem for the reductive analysis is that the subject referent does not actually have to believe herself the content given by the *that*-clause. That is,  $DP_1$  *believes*  $DP_2$  *that*  $S$  may be true without  $DP_1$  *believes that*  $S$  being true. This is particularly clear with predicates of personal taste and of subjective evaluation. Thus, (21a) and (21b) can both be true, as can (22a) and (22b):

- (21) a. I believe you that the coffee is tasteless. (the addressee having COVID 19)  
 b. I do not believe that the coffee is tasteless.  
 (22) a. I believe you that the problem is hard.  
 b. I do not believe that the problem is hard.

---

<sup>9</sup> Note that trust in an agent regarding the sincerity of a claim generally goes along with acceptance of whatever may be the grounds for that claim.



The truth of (21a) and (22a) may be based on the speaker putting herself in the addressee's shoes (empathy or simulation, cf. Moltmann 2010), without actually sharing the addressee's experience or evaluation.

Empathy with the object referent is not obligatory, though. Rather, using an evaluative predicate, the object referent may have taken what Lasersohn (2009) calls an 'exocentric stance', emphasizing in that case with the subject referent:

(23) Mary believes John that the exercise is difficult.

In (23), John may have emphasized with Mary when telling her that the exercise is difficult when it is in fact not difficult for him himself.

#### 4.4. Temporal relations between content bearers

Empathetic attitudes and two-place attitudes may differ in their temporal lifespan. Belief as a two-place attitude lasts as long as the agent has the belief. By contrast, belief as an empathetic attitude starts and ends with the believer responding (by way of trust) to the relevant the background content bearer. The difference is apparent in the use of past tense, pointed out by David Pesetsky (p.c.). A sentence with a stative predicate in past tense generally implies that the state no longer obtains, as in (24a):

(24) a. I believed that you would return

While (24a) suggests that the speaker no longer believes that the addressee returns, no such implicature is carried by (24b), which is perfectly compatible with the speaker still believing that the addressee returns:

(24) b. I believed you that you would return.

The empathetic belief in (24b) is not just mental states with a particular content, but a response to a communicative act by another agent in a particular situation.

Empathetic attitudes may also be responses to a lasting, perhaps dispositional attitudinal state of another agent, which allows the empathetic attitude to obtain only after that agent's communicative act:

(25) Though Mary told him the day before, only the next morning, after seeing her very pale, did John believe her that she was sick.

But empathetic attitudes may also relate to just the initial communicative act and not the enduring dispositional state or an enduring claim:

(26) Initially I believed Mary that she was sick, but later I started having my doubts about her ongoing claim.

Thus, an empathetic attitudes itself need not coincide temporally with the content bearer it is directed toward or the time of the communicative act that put forward that content bearer.

## 5. Lexical conditions on empathetic attitude verbs

The various observations we have made show that empathetic attitude reports cannot be reduced to a conjunction of two two-place attitude reports. Rather empathetic attitudes involve an essential interpersonal relation of trust or (auditory or mental) understanding mediating between the two content bearers.

For formalizing the semantics, I will make use of an ontology of content bearers, entities we refer to as claims, beliefs, suggestions, assumptions, promises, that is, what I call *attitudinal objects* (Moltmann 2017, 2019, 2020), as well nonverbal behavior meant to communicate a propositional content. Such content bearers are agent-dependent concrete entities that come with truth or more generally satisfaction conditions. Moreover, I assume that sentences have as one of their meanings properties of content bearers, in the sense that a sentence S is true of a content bearer d just in case the truth conditions of S are also the satisfaction conditions of d.

In the present context, it is not important how the truth or satisfaction conditions of sentences and content-bearers are conceived. On a traditional, possible-worlds view, they would be sets of worlds. On a situation-semantic view, they could be construed as sets of situations.<sup>10</sup> In any case, let us say that [S] is the truth-conditional content of a sentence S, and [d] the satisfaction conditions of a concrete content bearer d (both of which may be taken to be sets of worlds or situations). Then the *property-based* content cont(S) of S will be:

(27) For a sentence S,  $\text{cont}(S) = \lambda d[[d] = [S]]$

Empathetic attitude reports thus have a semantics as given for *believe* below, where  $d_c$  is a content bearer given by the context c:

(28) Semantics of empathetic belief reports  
For a context c,  $[X \text{ believe } Y [+ \text{that } S]]^c = 1$  iff  $\exists d(\text{believe}(d, x, d_c, y) \ \& \ \text{cont}(S)(d) \ \& \ \text{cont}(S)(d_c))$

In addition to the two content bearers, empathetic attitude verbs may have a Davidsonian event argument position, which would allow preserving the standard Davidsonian semantics of adverbials.

As a four-place empathetic belief relation, *believe* will be subject to the following conditions:

(29) If  $\text{believe}(d, x, d_c, y)$ , then  
a. x forms d is as a reaction to  $d_c$

<sup>10</sup> I have argued for a more complex truthmaker-based semantics in the sense of Fine (2017) in Moltmann (2017, 2019, 2020). This semantics gives a more fine-grained notion of content than possible-worlds semantics and avoids certain problems for standard situation-semantic views.

b. w forms d by way of trust in y regarding the truthfulness of d<sub>c</sub>.

## 6. Concluding remarks on the syntax-semantics interface

The semantics given in (28) raises a range of issues concerning the syntax-semantics relationship, though, which future research will have to address. One of them is whether the content bearers have a syntactic realization in the sentence, as silent elements. d<sub>c</sub> should certainly be somewhere represented by a category or feature that acts a demonstrative, permitting the identification of d<sub>c</sub> in the context. That category or feature should be the same for all empathetic attitude reports, as well as response-stance verbs in the sense of Cattell (1978), that is, verbs like *confirm*, *repeat*, and *agree*, which likewise presuppose a contextually given content bearer.

Another issue is whether the syntactic structure reflects meaningful relations that would motivate a decomposition of the lexical meaning of empathetic *believe* in syntax. For example, does the indirect object and the *that*-clause form a small clause, as has been argued for double-object constructions in general (Kayne 1984), and would the small clause be headed by the light verb *have* as Harley / Jung (2015) and Harley (2002) have argued for double-object constructions with *give* (which is thus decomposed as *cause* – *have*)? This would require extending the ‘have’-relation to the relation of being the intentional subject of a content bearer. Note, though, that a small-clause analysis would not be applicable to verbs of understanding, which involve a direct object and a clausal complement. A further challenge of course would be to trace the semantic difference between verbs of trust and verbs of understanding to the different syntactic structures they involve.

Finally, there is the question whether there may be a way of not making the content bearers arguments of the attitude verb, since the content bearers generally cannot be made explicit (with DPs such as *the belief that S* or *the claim that S*). One approach that has been pursued for two-place attitude verbs is that they are underlyingly combination of light verb and noun describing the content bearer, which allows treating the *that*-clauses as a relative clause modifying the content-bearer noun (Arsijenevič 2009, Moltmann 2021). On that view, (30a) would be derived from (30b), in the way indicated in (30c) (where, following Arsijenevič 2009, *belief* is taken to originate in the specifier position of a Force projection in the left periphery of the CP):

- (30) a. John believes that S.  
 b. John has belief that S.  
 c. John belief<sub>i</sub>-has that [CP[belief<sub>[Force e<sub>i</sub>]]] [IP S]]</sub>

It is not obvious at all, however, how such an analysis would apply to the empathetic-attitude verb construction: the noun *belief* does not allow for indirect objects and the prepositional construction in (31b) sounds neither natural nor equivalent to (31a):

- (31) a. I believe you that you will return.  
 b. ?? I have belief in you that you will return.

Empathetic attitude reports thus invite considerable further research regarding the syntax-semantics interface. This paper only had the more modest aim of clarifying their semantics.

## References

- Anscombe, E. G. (1979). 'What is it to believe someone?'. In C. F. Delaney (ed.). *Rationality and Religious Belief*. Notre Dame: University of Notre Dame Press.
- Arsenijević, B. (2009). 'Clausal complementation as relativization', *Lingua* 119, 39-50.
- Austin, J. (1962). *How to do Things with Words*. Cambridge, MA: Harvard University Press.
- Cattell, R. (1978). 'On the source of interrogative adverbs' *Language* 54, 61-77.
- Djäv, K. (to appear). 'Knowing and believing things: what DP-complements can tell us about the argument structure and composition of (factive) attitudes'. *Journal of Semantics*.
- Elliott, P. (2017). *Elements of clausal embedding*. University College London, PhD Thesis
- Fine, K. (2017). 'Truthmaker Semantics'. In B. Hale et al. (eds.): *A Companion to the Philosophy of Language V*, Oxford: Wiley-Blackwell, 556–577.
- Harley, H. (2002). 'Possession and the double object construction'. *Linguistic Variation Yearbook* 2, 29-68.
- Harley, H. and H-K. Jung (2015). 'In support of the P<sub>HAVE</sub> approach to the double object construction'. *Linguistic Inquiry* 46.4, 703-730.
- Kayne, R. (1984): *Connectedness and Binary Branching*, Dordrecht: Foris.
- Lasersohn, P. (2009): 'Relative truth, speaker commitment, and control of implicit arguments'. *Synthese* 166, 359–374.
- Moltmann, F. (2010). 'Relative truth and the first person'. *Philosophical Studies* 150, 187-220
- Moltmann, F. (2013). *Abstract Objects and the Semantics of Natural Language*. Oxford UP,
- Moltmann, F. (2014). 'Propositions, attitudinal objects, and the distinction between actions and products'. *Canadian Journal of Philosophy* 43, 679-701.
- Moltmann, F. (2017). 'Cognitive products and the semantics of attitude reports and deontic modals'. In F. Moltmann and M. Textor (eds.). *Act-Based Conceptions of Propositional Content. Contemporary and Historical Perspectives*. New York: Oxford University Press, 2017, 254-290.
- Moltmann, F. (2020). 'Truthmaker semantics for natural Language: Attitude verbs, modals and intensional transitive verbs'. *Theoretical Linguistics*. 46, 3-4, 2020, 159-200.
- Moltmann, F. (2022). 'Names, light nouns, and countability'. *Linguistic Inquiry* online first.
- Moulton, K. (2015). 'CPs: Copies and compositionality'. *Linguistic Inquiry* 46, 305-342.
- Pilkkänen, L. (2008). *Introducing Arguments*. Cambridge (Mass.): MIT Press.