Structured propositions, sentence structure and context sensitivity
1. Introduction

1.1 Why we need propositions and the problems they raise

Sentences of natural language, when uttered by speakers in a given context, encode pieces of information. For philosophers who accept the existence of propositions, the information encoded by a sentence is the proposition expressed by the sentence. A speaker uses a sentence to express a proposition. The hearer in understanding the sentence grasps the proposition. Propositions help explain our pretheoretic intuitions not only that sentences have meaning, but that different sentences in different languages (and possibly also within the same language) can have the same meaning – they express the same proposition. For example, the English sentence ‘snow is white’ expresses the same proposition as the German sentence ‘Schnee ist weiss’ and the French sentence ‘la neige est blanche’.

Sentences of natural language, when uttered by speakers in a given context, are true or false. Whether a sentence is true or false depends on the information encoded by the sentence and how this compares to how the world actually is. For philosophers who believe in propositions, sentences are true or false because they express propositions that are true or false. In order to determine the truth of a proposition we compare the content of the proposition, specifically how it represents the world, to how the world actually is. In other words, propositions have truth conditions: they tell us how the world must be for them to be true. So, propositions have two main functions: they represent the information conveyed by a sentence and how this information relates to the world, whether it is true or false.

Propositions play a number of other roles. They can have modal attributes, i.e. they are the types of thing that can be possible or necessary. They are the objects of propositional attitudes, i.e. propositions are the things we believe, doubt or suspect. They provide a way to understand possible worlds, i.e. as consistent sets of propositions. Propositions seem to have a variety of roles within philosophy in
general and the philosophy of language in particular\(^1\) and, although it is possible to explain the same data without propositions, it is by no means straightforward.

Although propositions are undeniably useful as a theoretical construct, they raise two important metaphysical questions. First, what exactly are propositions; in what sense do they ‘exist’? Secondly, how and why do they get to be true or false? How do they have truth conditions?

1.2 Historical accounts of propositions
The origins of modern work on propositions can be traced back to Gottlob Frege and Bertrand Russell. In ‘On Sense and Reference’ Frege argues that there must be more to the meaning of a name than just the referent, i.e. the object in the world to which the name refers. The names ‘Clark Kent’ and ‘Superman’ refer to the same individual. However, the sentence ‘Clark Kent is Superman’ expresses an important discovery, whereas ‘Clark Kent is Clark Kent’ is a tautology. Frege calls this extra element of meaning the sense. Extending the sense and reference distinction to sentences, Frege states that the referent of a sentence is its truth value and its sense is a thought (Frege 1892: 62–4). For Frege thoughts (his term for propositions) are not part of the outer realm that can be experienced through our senses or part of the inner realm experienced only in our minds. Thoughts are part of a third realm. They are objective entities that exist independently from speakers but can be grasped by speakers and shared between them (Frege 1922: 17). Russell, in *The Principles of Mathematics* also discusses propositions. Russell’s view of propositions differs from Frege’s in one significant respect: where Frege believed that propositions are combinations of the senses of the words combined in a sentence, Russell believed that the proposition is a combination of the referents. For Russell, then, the proposition expressed by the sentence ‘Mont Blanc is more than 4000 metres high’ contains the actual mountain, Mont Blanc, as one of its constituents.

Although Frege and Russell disagreed about the nature of the constituents of propositions, they both believed that propositions are structured. Russell (1903: 1 See King (2014a) for more on this.
§54) observes that a proposition is not simply a collection of objects. The proposition expressed by the sentence ‘A differs from B’ contains three constituents: A, difference, B. However, simply listing the constituents does not give us an accurate analysis of the proposition. This is the problem of the unity of the proposition. There is something else, in addition to the constituents of the proposition, that holds the proposition together and causes it to mean what it does. Russell’s argues that it is the verb, ‘differs from’, that relates the other two constituents, A and B. But what it is about the verb that has this unifying effect? It cannot be part of its meaning, as the verbal noun, ‘difference’ has the same meaning but does not play the unifying function. In ‘On Concept and Object’ Frege argues that the senses of predicates contain gaps that need to be filled by the senses of objects. For example, the two-place predicate ‘hit’ has two gaps to be filled, by the agent and the experiencer arguments. Frege’s view faces a problem, however, when we use a predicate as a subject, e.g. ‘hitting is bad’. In this case the same sense is used but the gaps have mysteriously disappeared. There seems to be something external to the meaning (either sense or reference) of the individual lexical items that gives the proposition its structure.

In spite of their differences, Frege and Russell face similar metaphysical problems. Both Frege and Russell conceive of propositions as objective entities that exist independently of human minds. If propositions are independent of minds, how do we come to know them, or to believe or doubt them? This is somewhat mysterious. A further worry, for both Frege and Russell, is that if propositions are objective, how can we entertain false propositions? Speakers often have false beliefs. If propositions are fully formed objective entities, waiting to be grasped by speakers then to account for the possibility of false propositions we need all potential propositions to exist, both true and false. Considering the productive nature of language and thought, the number of propositions is infinite. We can avoid this problem if propositions are somehow constructed, but if, as Frege and Russell believe, propositions are independent of speakers it is not clear how this could happen. Russell faces a further problem with false propositions. Consider again the example ‘A differs from B’. Russell’s explanation of the unity here is that the verb ‘differs from’ relates A and B. If A
and B are the actual entities A and B, then the proposition consists of entity A being in a difference relation with entity B. This is simply the fact that A differs from B. On Russell’s account we cannot distinguish the proposition from the fact that makes it true. This is what ultimately led Russell to abandon his theory of propositions in later work (King 2007:23).

Neither Frege nor Russell provides a satisfactory answer to the question of what propositions are. Our discussion has shown that propositions cannot be objective and entirely independent of speakers’ minds. Turning to our second question, Frege and Russell offer no explanation as to why propositions have truth conditions; they simply assume that they do. If anything, the fact that both theories face problems from false propositions suggests that propositions for both Frege and Russell can only be true. This is clearly a problem if we want propositions to be truth conditional. We are still looking, then, for answers to our original questions. Moreover we have encountered an additional question, namely what is it that gives propositions their structure? This question is the main focus of this dissertation.

In what follows I will defend the thesis that the syntactic structure of a sentence determines the structure of the proposition the sentence expresses, as argued by Jeffrey King and Scott Soames (King 2007, 2013a,b, 2014b, Soames 1987, 2010, 2014b). In a recent paper, Hodgson (2014) argues that propositional structure cannot be determined by syntactic structure because of the existence of unarticulated constituents that are added to the proposition by context-sensitive, pragmatic processes. As the proposition, on this view, contains constituents that are not present in the sentence, the structure of the sentence cannot determine the structure of the proposition. My aim here is to argue against this view. I will argue that the proposition expressed by a sentence is a minimal proposition, containing only highly restricted context-sensitive information. Unarticulated constituents are, therefore, neither part of the sentence nor the proposition it expresses. This allows us to maintain the view that the structure of the proposition is determined by the sentence, but means we need an alternative explanation of the unarticulated constituent data. Before I embark on this,
however, I will consider some arguments in favour of the thesis that sentence structure determines propositional structure to demonstrate why this might be a thesis worth defending.

1.3 Sentence structure and propositional structure
It is generally accepted within linguistics that sentences have hierarchical structure. Lexical items combine to form constituents, which combine to form larger constituents and, ultimately, sentences. Consider the sentence in (1)

1. That four-year-old boy can read the book

On the surface this is just a string of words. However, it is clear that certain combinations, such as ‘that four-year-old boy’ or ‘the book’ form units, whereas others ‘boy can’, ‘read the’ do not. Our intuitions are semantic – constituents are meaningful units, but there are also syntactic constituency tests, such as replacement and ellipsis. For example, we know that ‘that four-year-old boy’ is a constituent because we can replace it with the pronoun ‘he’. We know that ‘read the book’ is a constituent as it can be elided in response to a question:

2a. Who can read the book?
2b. That four-year-old boy can.

The sentence in (1) is built up from constituents to have a hierarchical structure, standardly represented either by brackets (3a) or a tree diagram (3b). In the following examples TP=tense phrase (equivalent to S, sentence), VP=verb phrase, DP=determiner phrase (equivalent to NP, noun phrase):

3a. [TP [DP That four-year-old boy] [can [VP read [DP the book]]]

3b. 

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2 See Adger 2003: 62–9 for more on constituency tests.
3 The tree diagram is simplified. The triangle notation highlights the omission of irrelevant structure within the DP. I have also omitted the vP layer. See Adger (2003) for a more detailed discussion of phrase structure within minimalist syntax.
There seems to be good evidence, then, to suggest that sentences have structure. If sentences have structure and, as Frege and Russell propose, propositions have structure, then it seems reasonable to hypothesise that there is a link between the two. If we consider syntactic structure in isolation, the question arises as to why it should exist if it has no bearing on the meaning of the sentence. If syntactic structure makes no contribution to communication and the expression of meaning it is difficult to imagine why languages should have syntactic structure at all or why syntactic structure should have evolved in the first place. This is a further reason to believe that syntactic structure has some role to play in determining the meaning of a sentence, i.e. that syntactic structure makes some contribution to the structure of the proposition.

It may be objected that as different languages use very different syntactic structures to express the same propositions syntax cannot encode any aspect of meaning. Consider the examples in (4):

4a. Bobby saw the black dog English
4b. *Bobby a vu le chien noir* French
   B saw the dog black
4c. *Chonaic Bobby an madra dubh* Irish
   Saw B the dog black

In English, (4a), and French, (4b), the subject precedes and is structurally higher than the verb, whereas in Irish, (4c), the verb precedes and is structurally higher than the subject. Similarly if we consider the noun phrase, in French and Irish the
adjective follows and is structurally lower than the noun, whereas in English the adjective precedes the noun.

The examples in (4) might be taken as evidence that there is no relation between syntactic structure and propositional structure. However, I believe this is not the case. In each of the examples above the order of the words in the sentence, or more properly the hierarchical structure of the sentence, shows how the words relate to one another. It is only through these syntactic relationships that we know which noun phrase is the subject and which the object and can establish what the sentence means. The cross-linguistic differences in terms of structure can be seen as directly parallel to the differences in terms of lexical items. The fact that Irish uses verb-subject order and English uses subject-verb order to encode the same relationship between the two lexical items is directly parallel to the fact that English uses ‘dog’ and Irish uses ‘madra’ to refer to the same four-legged animal. The relations between constituents in a proposition contribute to the meaning. Propositional structure has semantic value. In the same way that different lexical items in different languages can express the same semantic value, different syntactic structures in different languages can express the same semantic value, in terms of the relations they refer to.

There are, of course, languages that seem to have no syntactic structure. For example, languages with free word order, such as Latin, encode the relationships between words in terms of case endings and verbal inflections. This does not disprove our point. Different languages encode the same relationships in different ways; this may be through different syntactic structures or through morphology. If we consider the historical development of Latin, we see that as the case endings disappear, the syntactic structure becomes fixed. This happens slightly differently in all the Romance languages, which strengthens our point. Syntactic structure develops to express relationships between lexical items. The way it develops is, to at least some extent, arbitrary. The syntactic differences between the modern Romance languages can be compared to the differences in

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4 The standard view within generative syntax is that Latin does have syntactic structure, for example the unmarked word order in the clause is said to be subject-object-verb, with any deviations from this being motivated by specific discourse effects such as topicalisation or focus.
lexical items, for example the fact that the Latin word for ‘goat’, *capra* becomes *capra* in Italian, *cabra* in Spanish and *chèvre* in French. Using different lexical items to refer to the same entities is equivalent to using different syntactic structures or morphology to express the same relationships between lexical items. Both lexical items and syntactic structure contribute to the meaning of the sentence – both contribute a semantic value to the proposition.

We have argued so far that there must be some relationship between the syntactic structure of the sentence and the structure of the proposition. This is a view held by a number of philosophers. For example, Bertrand Russell highlighted a link between syntactic structure and propositional structure in his work on structured propositions in the *Principles of Mathematics*:

‘The study of grammar, in my opinion, is capable of throwing far more light on philosophical questions than is commonly supposed by philosophers… On the whole, grammar seems to me to bring us much nearer to a correct logic than the current opinions of philosophers; and in what follows, grammar, though not our master, will yet be taken as our guide’ (Russell 1903 §46)

Some years later David Kaplan reintroduced the idea:

‘If I may wax metaphysical in order to fix an image, let us think of the vehicles of evaluation—the what-is-said in a given context—as propositions. Don’t think of propositions as sets of possible worlds, but rather as structured entities looking something like the sentences which express them. For each occurrence of a singular term in a sentence there will be a corresponding constituent in the proposition expressed.’ (Kaplan 1977: 494)⁵

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⁵Structured propositions never played a role in Kaplan’s semantic theories. He maintained a possible worlds view of propositions (see King 1997/2011)
More recently there has been a significant body of work, developing the Russellian idea of structured propositions and the link between syntactic structure and propositional structure, beginning with Soames (1987) and Salmon (1986) (see King 1997/2011 for an overview and further references). We will focus here on the work of Jeffrey King, as it is here that the link between the sentence and the proposition is most clearly articulated.

King (2007, 2013a, 2013b, 2014b) argues that propositions are facts consisting of constituents (e.g. the objects referred to by proper names, the properties referred to by predicates) and the propositional relations that hold between them. Sentences consist of lexical items (the linguistic entities that refer to objects, properties, relations, etc.) standing in sentential relations. Speakers of natural languages, such as English, use their linguistic knowledge to form a proposition from the sentence they hear. This involves determining the semantic values of each lexical item and interpreting the sentential relations. For example to reach the proposition expressed by ‘Bobby dances’ a speaker must identify the object specified by ‘Bobby’, the property specified by ‘dances’ and interpret the subject-verb relation holding between them as a propositional relation ascribing the property of dancing to Bobby. Under King’s view, the structure of a sentence (the sentential relations) determines the structure of the proposition (the propositional relations) due to the application of linguistic rules. The way in which a speaker of a language interprets a sentential relation as representing a certain propositional relation is comparable to the way she interprets a lexical item as referring to an object or property. In both cases linguistic conventions, specific to the language of the speaker, determine how the sentence is interpreted and the proposition is obtained.

According to King, the main advantage of his theory is that it provides an account how propositions come to have truth conditions. As we saw in section 1.2 above, the ‘classical’ view of propositions, put forward by Frege and Russell, saw propositions as objective entities, independent of speakers’ minds, that simply have truth conditions as part of their nature. There is no explanation as to how or why this should be the case. King, on the other hand, argues that it is speakers
who give propositions, and their associated sentences, truth conditions. When a speaker of English interprets the sentential relation in a sentence such as 'Bobby dances' as the propositional relation ascribing the property of dancing to Bobby this provides the proposition with its truth conditions. The interpreted proposition represents the world as being a certain way; it represents Bobby as having the property of dancing. Propositions have truth conditions because they are representational. They are representational because of the way speakers interpret the sentences that express them. King’s account of propositions addresses all three of the fundamental questions. Propositions are facts produced by speakers when they interpret a sentence according to the linguistic rules of their language. Propositions have structure because sentences have structure. The structure of the sentence determines the structure of the proposition. Propositions have truth conditions because they are interpreted as being representational by speakers.

Various objections have been made to King’s account of structured propositions. For example, Scott Soames (2014c) argues that King draws too strong a link between language and propositions. Soames agrees with King that propositions rely on agents to provide their truth conditions (see Soames 2010, 2014b for his theory of propositions as cognitive event types), but he argues propositions can be the content not only of sentences, but also of thought and perception. For example, when we see a red apple we predicate redness of the apple. According to Soames, we have a proposition here without any linguistic input. For King this is impossible – there can be no propositions without language. If King is right, this means that neither non-linguistic animals nor pre-linguistic humans can entertain propositional attitudes, such as beliefs. This has important implications, the discussion of which is beyond the scope of the current work (see King 2014b: 60 for details). John Collins (2007) raises a different but equally compelling objection to King’s theory. He argues that syntax provides too much

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6 Crucially for King propositional facts are different from real world facts that make them true or false. The propositional fact that 'Bobby dances' is a fact of the way language is used by speakers, it is not the fact that in the world Bobby actually does dance. The propositional fact may be true or false depending on whether or not there is a corresponding real world fact. This distinction between linguistic facts and real world facts is how King’s theory avoids the problems faced by Russell’s theory of propositions.
structure to determine the propositional structure. Much of the structure generated by syntax is irrelevant to truth conditions. King (2014b: 60–4) attempts to counter this criticism. Although this is another area that warrants discussion, it will not be pursued here.

In what follows I will argue against one particular attack on King's theory and the more general thesis that syntactic structure determines propositional structure, namely that presented by Thomas Hodgson (2013, 2014). Hodgson argues that propositional structure cannot be determined by syntactic structure because of extra 'unarticulated' constituents that are not present in the syntax but are present in the proposition as a result of context sensitive pragmatic processes. Before we can examine Hodgson's argument we need some background on the relationship between syntax, semantics and pragmatics. That is the focus of the next section.

2. The Problem
2.1 Syntax, Semantics and Pragmatics
The linguistic structure of a sentence does not determine every aspect of the meaning intended by the speaker when she utters that sentence. Grice (1957/1989) draws a distinction between sentence meaning and speaker meaning, i.e. between the literal meaning of the sentence uttered and the meaning implied by the speaker to be inferred by the hearer. For example, if around lunchtime you ask me if I am hungry I might reply: 'I had a large breakfast'. Clearly the meaning I intend to convey here is that I am not hungry. Grice (1975/1989) calls these inferences, made by the hearer based on the words the speaker uttered and the context of the utterance, implicatures. Implicatures, such as 'I am not hungry' are propositions, in the sense that they are meaningful semantic units. However, there is clearly no formal relationship between an implicature and the sentence uttered. There is no way to read off the structure of these types of proposition from the output of syntax.

Subsequent research has demonstrated that the derivation of conversational implicatures is not the only pragmatic process at play when we consider the
meaning of a sentence uttered in context. Often, before a conversational implicature can be derived, other pragmatic processes, drawing on the context, are necessary. If we revisit the breakfast example, it seems that to get to the implicated proposition ‘I am not hungry’ we need more information than the literal meaning of the sentence gives us. Literally ‘I had a large breakfast’ means ‘I had a large breakfast at some point in the past’. This literal proposition will not enable the hearer to derive the implicature. To do this, we need a more specific proposition, i.e. ‘I had a large breakfast this morning’. Only then can we derive the implicature ‘I am not hungry’. This temporal constituent is required in order to expand the proposition to give a full account of what the speaker said, but the sentence contains no constituent that corresponds to it.

The idea that context can play at least some role in fleshing out propositions is widely accepted. Grice (1975/1989: 25) accepts that reference fixing and disambiguation are part of ‘what is said’. For example we cannot establish the truth value of the sentence ‘He went to the bank’ without using context to fix the semantic value of ‘he’ and whether ‘bank’ refers to a financial institution or the edge of a river. However, there is a significant difference between processes such as reference assignment and disambiguation and those needed in the breakfast example. The reference of indexicals is determined by linguistic rules; it is automatic and unrelated to the speaker’s beliefs and intended meaning. Reference fixing and disambiguation are determined ‘bottom-up’ by the constituents of the sentence. The expansion of the proposition in the breakfast case, to include the extra temporal constituent, is not motivated by any constituent of the sentence. It is determined ‘top-down’ by the context and speaker’s intention to answer the question ‘are you hungry?’ (see Recanati 2004:18–19 for discussion of this distinction). It is this second type of pragmatic process, where there seems to be extra structure and extra constituents in the proposition that are not present in the sentence that arguably pose a significant problem for the thesis that syntactic structure determines the structure of the proposition.
2.2 Hodgson’s Argument – the problem of Unarticulated Constituents

In the previous section we saw in general terms how pragmatic processes can add constituents to a proposition. In this section we will examine Hodgson’s argument as to why this poses a problem from the thesis that syntactic structure determines propositional structure. Hodgson (2014) takes up the theory of unarticulated constituents developed by Recanati (2002).

The term ‘unarticulated constituent’ was first introduced by John Perry. Hodgson gives Perry’s original example:

‘It is a rainy Saturday morning in Palo Alto. I have plans for tennis. But my younger son looks out the window and says, ‘It is raining’. I go back to sleep. What my son said was true, because it was raining in Palo Alto. There were all sorts of places where it wasn’t raining: it doesn’t just rain or not, it rains in some places while not raining in others. In order to assign a truth-value to my son’s statement, as I just did, I needed a place. But no component of his statement stood for a place. The verb ‘raining’ supplied the relation $rains\ (t,p)$ – a dyadic relation between times and places … […] The tensed auxiliary ‘is’ supplies a time, the time at which the statement was made. ‘It’ doesn’t supply anything, but is just syntactic filler. So Palo Alto is a constituent of the content of my son’s remark, which no component of his statement designated; it is an unarticulated constituent.’ (Perry 1986: 138, cited in Hodgson 2014: 7–8)

Similar to the breakfast example, we have a constituent in the proposition, i.e. the place Palo Alto, which is not a constituent of the sentence uttered, i.e. ‘it’s raining’. If we follow Perry’s analysis of the data, however, there is no problem for the thesis that syntactic structure determines propositional structure. Perry suggests that the verb ‘rain’ encodes a ‘dyadic relation between times and places’; in other words, that the place constituent is obligatory. Recanati (2002) argues, however, that this cannot be the case. The verb ‘rain’ does not always require a place constituent. Recanati (2002: 317) describes a world that is
suffering from severe drought. It has not rained in a long time. An observatory is set up such that if it rains anywhere on the planet a bell sounds. A researcher hears the bell ring and exclaims: ‘it’s raining!’ In this case there is no relevant location. The only salient fact is that it is raining somewhere. There is no location constituent in the proposition in this case. Therefore, the location constituent associated with the verb ‘rain’ is optional.

It is the optionality of unarticulated constituents that makes them so problematic for the thesis that syntactic structure determines propositional structure. As Hodgson points out, the single sentence ‘it’s raining’ expresses different propositions with different structures in different contexts. In the Palo Alto case, the proposition has a location constituent. In the extreme drought case it does not. In both cases, however, the sentence structure is the same. Therefore, the structure of the sentence cannot determine the structure of the proposition. Hodgson formalises his argument as follows:

5. P1. Relative to context C, the proposition expressed by sentence S with structure X has propositional structure Y.

P2 Relative to context C’ , the proposition expressed by sentence S with structure X has propositional structure Y’.

P3 Y ≠ Y’.

C So, it is not the case that the structure of S determines the structure of the proposition it expresses.

In the next section I will argue against Hodgson’s view, by questioning what exactly the proposition expressed by a sentence is. I will argue that the minimal proposition, containing only highly restricted contextual information, is the best candidate. The minimal proposition has empirical and theoretical advantages over the fully elaborated proposition, it is compatible with King’s theory of propositions, and allows us to maintain the thesis that the structure of a proposition is determined by the structure of the sentence that expresses it.
3. Against Hodgson’s argument: the nature of the proposition expressed

3.1 Minimal semantics: arguments for the minimal proposition

My line of attack against Hodgson’s argument is to question what is meant by ‘the proposition expressed by sentence S’. There are two main views as to what the proposition expressed by a sentence might be. Hodgson, following Recanati, takes the proposition expressed to be a fully elaborated proposition, one which gives a full account of ‘what is said’ by the speaker, incorporating information derived by top-down pragmatic processes, based on speaker intentions. There is an alternative view as to what the proposition expressed by a sentence might be, namely semantic minimalism.

According to semantic minimalism (Borg 2004, 2012a, 2012b; see also Bach 1994a,b for a similar view) the proposition expressed by a sentence is the literal sentence meaning, a minimal proposition determined entirely by the meaning of the lexical items and the syntactic structure of the sentence. The proposition expressed can involve some context sensitive information; however, this is restricted to pure indexicals, where the means of recovering the content of these expressions is determined by linguistic rules. Crucially, speaker intentions play no part in a minimal proposition. This is the fundamental difference between semantic minimalism and Recanati’s truth conditional pragmatics. For minimal semantics, the primary object of study, i.e. the proposition expressed by a sentence, is literal sentence meaning. A clear line is drawn between sentence meaning and speaker meaning. Truth conditional pragmatics, on the other hand, blurs this line. For Recanati the proposition expressed by a sentence is the complete proposition encoding everything the speaker intends to communicate with that sentence. It is a combination of sentence meaning and speaker meaning. Taking Hodgson’s argument in (5) at face value, then, if we are interested in ‘the proposition expressed by sentence S’, then the minimal proposition, the literal meaning, is the obvious candidate. Recanati’s full proposition is not ‘the proposition expressed by sentence S’. Instead it is one of many propositions expressed by the speaker by using the sentence. Recanati’s full proposition encodes (part of) the speaker meaning, not the sentence meaning.
Opponents of minimal semantics argue that the minimal or literal proposition is a theoretical construct, only available to the linguist; therefore it cannot be the proposition expressed by a sentence. Recanati (2004) argues that the fully elaborated proposition, based on speaker intentions, is the proposition expressed by a sentence as this is the only proposition that the speaker is conscious of expressing and the hearer is conscious of grasping. This is his Principle of Availability. If we take a sentence such as 'John has three children' this literally means that John has at least three children. It can sometimes be interpreted in this way, for example if I say: ‘If John has three children he can benefit from lower rates on public transport’ (Recanati 2004: 11). More usually, however, in answer to a question such as ‘How many children does John have?’ the sentence ‘John has three children’ will be interpreted as exactly three, Recanati (ibid) observes that this expanded proposition, i.e. ‘John has exactly three children’ is the only proposition the speaker is conscious of expressing. The speaker is unaware of expressing the literal proposition, i.e. ‘John has at least three children’.

Recanati’s Principle of Availability is based on pretheoretical intuitions. It is not clear that these will be sufficiently reliable. If we take for example Kent Bach’s example of a boy who has cut his finger and whose mother responds ‘you’re not going to die, Peter!’ (Bach 1994a). Recanati would argue that the minimal proposition ‘you are not going to die’, i.e. ‘you are immortal’ is not cognitively available. If we asked what the speaker said, the response would be the saturated proposition ‘you are not going to die from that cut’. I am not so sure. If you asked what the speaker said, the respondent is likely to reiterate the words used by the speaker. This is in part a problem with the use of the word ‘say’, but also the fact that this type of ‘loose talk’ (see Bach 1994b) is so pervasive that the respondent, in the same way as the speaker, might not find it necessary to give the sentence corresponding to the fully expanded proposition. Moreover, if we try to improve on the respondent’s initial answer by asking what the speaker meant, then we face a further problem as it seems to me that the mother’s intended meaning, namely ‘stop making such a fuss’ would be the appropriate
answer. Recanati may reply that the respondent giving the implicature in this way does not undermine his theory, as both the implicature and ‘what is said’ are consciously available (1989/1991:107). Similarly the respondent reiterating the mother’s exact words does not disprove the theory. However, using theoretically uninformed respondents to test Recanati’s theory is far from straightforward.

Borg (2004: 252) observes that indirect speech reports do not provide good evidence for ‘what is said’ in a Recanati’s sense. Indirect speech acts can be liberal, such that an utterance of ‘it’s raining’ may be reported as any of the following:

6a. S said that it is raining
6b S said that it is raining where she is
6c S said that it is raining at (place) l
6d S said that it was raining at (place) l on (time) t.
6e S said that it was nice weather for ducks at l on t
6f S said that the drought was over.

Indirect speech can provide no clear answer as to what proposition is expressed by the sentence in this context.

Borg (2012b: 13) argues that semantic minimalism is pre-theoretically intuitive: it claims that sentences convey information that can be true or false that is simply a function of the words the sentence contains and the way they are put together. Furthermore, the fact that children, pedants and philosophers often make reference to the literal meaning of sentences provides evidence that we can and do have intuitions about the minimal proposition.

We might expect that the fully elaborated proposition is in some sense more salient than the minimal proposition. It is the output of this level of pragmatic processing and the basis from which implicatures are calculated. However, this does not mean that the fully elaborated proposition has any greater significance than the minimal proposition. Nor does it mean that the minimal proposition...
plays no role in the interpretation of sentences. We might make a comparison here with syntax. In the case of wh-question, for example, there is good evidence that the wh-word originates in a position lower in the clause. For example we can rephrase a wh-question such as ‘Which book did you read?’ as an echo question: ‘You read which book?’ suggesting that the wh-phrase originates in the object position. Although there is good syntactic evidence, speakers are not conscious of the wh-word’s original position. Simply because a process or representation is subconscious does not mean that is not theoretically significant.

So it seems that Recanati’s view that the fully elaborated proposition has some kind of pretheoretic advantage over the minimal proposition is unjustified. Moreover, semantic minimalism has various advantages over Recanati’s view, as summarised by Borg (2012a: 513–4). First, excluding pragmatics from our semantic theory means that we do not need to attempt to formalise pragmatics. Considering the wide range of roles that context can play, and the wide variety of information sources that make up the context of an utterance, formalising pragmatics completely will be an impossible task. Second, it seems sensible to suggest that there is some kind of stable, core element of meaning. If every element of meaning were subject to fluctuation due to context then it is difficult to see how children could ever acquire it. Finally, context-invariant linguistic content seems necessary to explain the productivity of language. Speakers can produce an infinite number of novel sentences. Moreover, we can understand an infinite number of sentences due to the systematicity that language seems to display. If we can understand ‘James loves Bobby’ we can also understand ‘Bobby loves James’. Borg (2004: chapter 2) also discusses how semantic minimalism enables us to maintain the idea that the language faculty is modular.

Focussing on the literal, minimal proposition offers us theoretical advantages and no serious empirical challenges. It also enables us to draw clear boundary between sentence meaning and speaker meaning, which is significant if we are concerned with the proposition expressed by a sentence rather than the proposition(s) expressed by a speaker. For our purposes the advantage of
Semantic minimalism is clear. Semantic minimalism does not allow speaker intentions to be part of the proposition expressed by the sentence. Unarticulated constituents encode speaker intentions and so cannot be part of the proposition expressed by the sentence. Therefore, whatever the context, the structure of the proposition associated with sentence S will be the same. If we consider the ‘it’s raining’ example, whatever the context, i.e. in both the Palo Alto case and the drought case the proposition will be the same, namely the minimal proposition ‘it’s raining’. There is no unarticulated constituent that is part of the proposition.

Although semantic minimalism enables us to answer the challenge of unarticulated constituents, there is the question of its compatibility with King’s theory of propositions. We saw above that the main advantage of King’s theory is that it enables us to answer the metaphysical questions about propositions. The way it does this is by emphasising the importance of speakers. For King, proposition are facts built by speakers and speakers give propositions their truth conditions. Is King’s emphasis on speakers compatible with semantic minimalism, where the focus is on the literal meaning of the sentence? The crucial point to note is that minimalist semantics does not claim sentence meaning is independent of speakers or of the context in which a sentence is uttered. Minimalist semantics allows for the resolution of true indexical elements, so some amount of contextual information is part of the proposition. Moreover, to reach a minimal proposition from a sentence we need to make use of the linguistic rules, which objects and predicates the lexical items refer to, which propositional relations the syntactic structure represent. Unless we assume that language has some kind of objective reality independent of its speakers, minimal semantics also needs speakers with knowledge of these rules to get a proposition. Minimal semantics does not allow speaker intentions to play a role in the proposition. King’s theory of propositions makes no reference to speaker intentions. King’s theory simply requires speakers with knowledge of linguistic rules. This is entirely compatible with semantic minimalism.

Hodgson raises two further objections against the idea that the proposition expressed by a sentence is the minimal proposition. First, as the minimal
proposition is, to all intents and purposes, a direct interpretation of the output of syntax, our thesis that the structure of the proposition is determined by the structure of the sentence seems trivial. Hodgson (2014: 19) argues that King’s theory of propositions cannot be based on minimal propositions; if it were then his Same Syntax, Same Structure principle would be trivialised:

‘Sentences of a given language with the same syntactic structure and that differ only in having lexical items with different semantic values occurring at the same places in their syntactic trees express propositions with the same structure that differ at most in having different constituents, corresponding to the lexical items with different semantic values, occurring in the same places in those propositions.’ (King 2013b, 775)

Hodgson argues that King must want to say something substantive with this principle, and if he is simply saying that the output of syntax is equivalent to the output of syntax, which is essentially what the minimal proposition is, then this principle does not add anything to our understanding of the nature of propositions. However, Hodgson’s notion of ‘something substantive’ is different to King’s. Hodgson believes that our theory of propositions should tell us something about the nature of communication. Although King may also believe (as do I) that propositions are a fundamental part of communication, this is not the main focus of his theory. King is concerned with the metaphysics of propositions, i.e. what they are and how they have truth conditions. For this reason it seems that the minimal proposition is a perfectly good candidate for the proposition expressed by a sentence in King’s theory. If anything, the Same Syntax Same Structure principle given above seems to suggest that King’s view of propositions is closely aligned to that of semantic minimalism. There is no reason, then, to believe that semantic minimalism is in any way inconsistent with King’s theory of propositions.

The second and more serious objection, raised by Hodgson (2014: 11–2), is that if the proposition expressed by a sentence is the minimal proposition, then we
have nothing to say about unarticulated constituents. Banishing them to a pragmatic middle ground is not a very satisfactory solution. If the proposition expressed is the minimal proposition, then unarticulated constituents, or at the very least the linguistic data that they are invoked to explain, are an important part of communication that our theory of structured propositions cannot account for. This will be the task of the next section.

4. Accounting for unarticulated constituents
4.1 Syntactic ellipsis
Bach (1994a, b) observes that in many cases the output of syntax, even with the context-dependent gaps filled in, does not provide a truth evaluable proposition. This is clearly a problem if we want to say that syntactic structure determines propositional structure, as sometimes the syntactic structure just cannot give us a proposition. Consider the following examples:

7. Steel isn't strong enough (for what?)
8. I prefer red wine (to what?)
9. Ryan Giggs is too old (for what?)

Bach calls sentences like these propositional radicals. They need to be completed by pragmatic processes before they form a truth evaluable proposition. It could be argued that in these cases the completion of the proposition is determined by one of the lexical items within the proposition. The terms ‘enough’, ‘prefer’, ‘too’ all signal that more information is needed from the context. In this sense the pragmatic processes required here are triggered by some part of the logical form, by which I mean the linguistic representation that is the output of syntax and the input to semantics (see Stanley 2000: 391–2 for discussion of this term). They are bottom up, motivated by some linguistic element. One solution to this type of case would be to say that there are gaps in the syntax that need to be filled by context.7

7 This is not the solution preferred by Bach (1994a, b) who categorically states that syntax cannot help us here.
The idea that syntactic representations contain gaps to be filled in contextually is not in itself problematic. Consider cases of VP ellipsis or gapping, where various constituents are unarticulated:

10. Bobby likes dancing and James does too.
11. Bobby wants ice cream with his crumble and James custard.

The standard analysis of this type of example is that there are gaps in the syntactic representation to be filled in by the context. The same could be said for the examples above. Lexical items such as ‘too’, ‘prefer’, ‘enough’ always require completion in every context so it is reasonable to suggest that these extra slots are part of the syntax. If we analyse propositional radicals in this way we can maintain the thesis that syntactic structure determines propositional structure. The proposition contains constituents that are not overtly expressed in the sentence, but are present covertly.

Although this solution is within the spirit of semantic minimalism, as the search for contextually specified information is motivated bottom up by elements of the linguistic form, in order to fill in the gaps it will, at least in some cases, be necessary to make reference to speaker intentions. Even if we do accept this solution for examples such as those above where the extra constituent is always required, it cannot be used to account for cases where the extra constituent is optional, such as ‘it’s raining’.

### 4.2 Indexicality

An alternative to the syntactic gap analysis is to postulate hidden indexicals within the logical form. These indexicals can either be associated with individual lexical items, sharing the same syntactic node, or they can occupy their own position in the syntax. Jason Stanley provides this kind of analysis for unarticulated constituents. Stanley (2000) provides evidence from binding to suggest that sentences such as ‘it’s raining’ contain a covert location variable. Consider the following examples:
12. Wherever I go it rains
13. Whenever I light a cigarette it rains

The natural interpretation of (12) is ‘when I go to a place, x, it rains in x’. It could be argued that the place variable is introduced by the locative quantifier, ‘wherever’. In (13), however, the quantifier makes no reference to place, yet still the natural interpretation still seems to involve a place variable: whenever I light a cigarette at time t, place x, it rains at time t, place x’. This evidence leads Stanley to conclude that there is always a covert place variable present in the logical form. Recanati (2002) responds to this data by suggesting that it can still be accounted for by an unarticulated constituent if we allow that an unarticulated constituent can be a bound variable. Discussion of these two analyses is beyond our scope here. One point that must be emphasised here is that the suggestion that a place variable is always present in the syntax faces exactly the same problem as suggesting a syntactic gap, namely how do we account for examples such as the drought case where there is no specified location?

Stanley & Szabo (2000) offer an alternative indexical account. This article makes no reference to the rain example, but it does consider other types of unarticulated constituent, specifically those involved in quantifier domain restriction, such as:

14. Bobby is tall
15. Everyone lives in London

The sentences in (14) and (15) do give fully truth evaluable propositions. We can determine a truth value of (14) by predicating tallness of Bobby. If Bobby has the property of tallness then (14) is true. Similarly (15) will be true if everyone does in fact live in London. Crucially, however, these sentences are domain sensitive. To establish the actual truth value of ‘Bobby is tall’ we need to specify the comparison class. The sentence is true if the comparison class is other four year olds, but false if the comparison class is basketball players’. The quantifier in (15) also requires a specific domain. If the domain is everyone in the world, then
this is false. If the domain is restricted to all my friends from university then it is true.

Stanley and Szabo (2000) argue that in cases such as (15) above the common noun, ‘one’, is associated (shares a syntactic node) with a contextual variable. This variable interacts with the context and restricts the set of individuals over which the quantifier quantifies. Stanley and Szabo explain this in set theoretic terms. For them the variable is a function that alters the denotation of the common noun ‘one’ such that it becomes the intersection of the maximal set ‘one’ (i.e. everyone) and the set specified by the context (i.e. everyone I went to university with).

Whether the set theoretic approach outlined by Stanley and Szabo is the best way of accounting for quantifier domain restriction is a question that is beyond our scope here. One interesting aspect of their approach is the idea that nouns, and other lexical items, are associated with contextual variables that can alter their denotation. It is clearly not just nouns that alter according to context. Consider example (14) above, where the predicate ‘tall’ seems to change its meaning according to context. It could mean ‘tall for a four-year-old’ or ‘tall for a basketball player’ depending on the context. Could we extend this analysis to weather verbs?

In both examples (14) and (15) above the indexical seems to have the effect of limiting the set of individuals over which the quantifier quantifies or the predicate predicates. We can, therefore, extend Stanley and Szabo’s set theoretic analysis in these cases. Weather predicates are different. They are traditionally analysed as zero-place predicates. Under a set theoretic analysis we would have to say that context alters the set from the empty set to a set containing a place element. However, even in cases where there is a place constituent this is not an argument of the verb and so the verb does not predicate over it in the same way. When there is an overt place constituent it has the syntactic status of an adjunct rather than an argument. It might be suggested that in the case of weather verbs the contextual variable somehow alters the meaning of the predicate (compare
contextualist solutions to scepticism in epistemology, such as DeRose (1995), where, taking inspiration from Lewis (1979), it is argued that ‘know’ has a different meaning in different contexts. The contextually specified indexical element could change the predicate from ‘rain’ to ‘rain in London’. However, this does not seem a satisfactory solution either. Compare the following two examples:

16. It’s raining in London
17. It’s raining hard

In (17) the modifying adverb ‘hard’ does seem to modify the meaning of the predicate; it says something about the nature of the rain. In (16), however, the place constituent seems to modify the entire clause. If we combine both modifiers, as in the examples below, we find that (18) is definitely the most natural, whereas (19) is perhaps even ungrammatical:

18. It’s raining hard in London
19. ?*It’s raining in London hard

Interestingly we can also topicalise the place constituent, but not the adverb:

20. In London, it’s raining
21. *Hard, it’s raining

This syntactic evidence supports the intuition that the place constituent does not modify the verb. We cannot create a new predicate ‘rain in London’ by adding a modifier in the same way as we can create a new predicate ‘rain hard’ by adding an adverb. Therefore, it seems that indexicals provide no answer to the problem of sentences such as ‘it's raining’.

4.3 Modifying the domain of interpretation
So far we have considered accounting for unarticulated constituents by postulating gaps in the syntactic structure or indexicals associated with lexical
items. Although such solutions may account for some cases of context-sensitive information additional to the minimal proposition, they cannot work for truly optional unarticulated constituents, such as the place constituent in the proposition expressed by the sentence ‘it’s raining’. Moreover, it is questionable whether such solutions are truly compatible with minimal semantics, as, although the search for contextual information is initiated by some element in the syntax, the actual information required will make reference to speaker intentions. A further possibility is to deny that the information encoded by unarticulated constituents on Recanati’s analysis ever forms part of the proposition expressed. Instead, it only ever part of the context within which the proposition is interpreted.

Borg (2012: 8–9) argues that the minimal proposition, i.e. the literal meaning of the words plus the structure provided by syntax, always has truth conditions. Bach’s so-called propositional radicals, as seen in examples (7–9) above are not devoid of truth conditions as Bach suggests, instead they have very general truth conditions. If we take truth conditions to be a representation of how the world must be for that proposition to be true, then in order for the proposition expressed by the sentence ‘it’s raining’ to be true all that is necessary is for rain to be falling from the sky in the world somewhere. Similarly, for the proposition ‘steel is strong enough’ to be true, it must be the case that steel is sufficiently strong for something. Crucially, Borg’s intuition is that in order to know what these sentences mean, we do not need any extra contextual information, derived from speaker intentions. We just need to know the meaning of the words and how to interpret the syntactic structures. This provides us with general truth conditions.

There is an important distinction between truth conditions and truth values. To understand the meaning of a sentence we need to know its truth conditions, or how the world has to be for that sentence to be true. In order to understand the sentence ‘Bobby dances’ we need to know how the world would have to be for it to be true, i.e. that there is an individual referred to by the name ‘Bobby’, that there is a predicate ‘dances’ and that the individual Bobby falls under that
predicate. Crucially, to understand the sentence we do not need to know who Bobby is or whether he actually does dance. We do not have to know whether the sentence is true or false. To know how the world would have to be for a sentence to be true is to know its truth conditions. To know whether it is true or false is to know its truth value. The distinction between these two ideas is often unclear in discussion of propositions. However, they are distinct. We can know the meaning of a sentence without knowing whether it is true or false. For example, I can know the meaning of Goldbach’s conjecture: ‘every even number is the sum of two primes’, although I, along with the rest of humanity, do not know whether it is true.

Borg (2004: 239) takes this distinction further, arguing that establishing truth conditions is the realm of truth conditional semantics, whereas establishing truth value on a particular occasion of utterance is the realm of pragmatics. Under this view, it is only when it comes to verifying the proposition that the context becomes relevant. It is at this stage that we consider the context and, more specifically, what the speaker intended to communicate. Although such a neat division of labour is desirable, it is not clear to me that it can be maintained. As we saw above, we do not need to know whether a sentence is true or false to know what it means. It is easy to construct a case where we use contextual information and speaker intentions, but do not actually verify the truth of the proposition. For example, if I ask my friend what the score is at the cricket, and she replies ‘it’s raining’, I don’t then go to Lord’s to check on the levels of precipitation. I simply assume that she is telling the truth. Perhaps accepting testimony from a reliable source can be considered verification. Although the notion of verification is crucial to our theories or communication, it is badly understood.

A full examination of verification is beyond our scope here. There is one aspect of it that I will consider. The cricket example demonstrates that the standard view of verification, as a comparison of the truth conditions represented by a proposition and the way the world actually is, is oversimplified. We do not (usually) compare the truth conditions represented by a proposition to the
world as a whole, but to a restricted ‘world’, a contextually specified domain of interpretation. In the cricket example, I interpret my friend’s utterance of ‘it’s raining’ not by checking its truth with the world as a whole, but by checking its truth within the domain specified by context. My initial question ‘what’s the score at the cricket?’ sets (at least in part) the context and restricts the domain to the cricket match taking place at the time of utterance.

It is this domain sensitive aspect of verification that suggests a novel way of looking at the problem of unarticulated constituents. In cases such as ‘it’s raining’, the proposition expressed by the sentence is always the literal proposition with general truth conditions. However, when these truth conditions come to be verified within a context of utterance, extra information comes into play. This extra information does not become part of the proposition; it is not an unarticulated constituent. Instead it is only ever part of the context of the utterance, i.e. part of the domain of interpretation.

One way to make this clearer is to think about how sentences such as ‘it’s raining’ are interpreted within model theoretic semantics. Typically, to establish the truth of a proposition containing a one-place predicate we look to see whether, within our model, the individual referred to by the name has the property specified by the predicate. This might be conceptualised set-theoretically. For example, the sentence ‘Bobby dances’ is true if the individual referred to by ‘Bobby’ is a member of the set of those individuals that fall under the predicate ‘dance’. The truth of zero-place predicates, such as ‘rain’ cannot be determined in this way. Within model theoretic semantics the truth of zero-place predicates is simply stipulated as being either true or false within the model. The sentence ‘it’s raining’ is true if the model specifies that ‘it’s raining’ is true within the model. Applying the idea of models to real life communication, we might argue that context restricts the domain of interpretation and creates a model within which sentences are evaluated for truth. The location element associated (in some cases) with the sentence ‘it’s raining’, is, then, part of the domain of interpretation, i.e. part of the model.
The details of the idea presented here need to be fleshed out. For example, how is location or other relevant contextual information encoded within the model and how is it determined? In the cricket example, the context provides a very specific location. In the Palo Alto example the relevant location is the location of the speaker. In the drought case there is no specific location and the proposition retains its literal meaning, i.e. 'it's raining somewhere'. Although these are important issues, we can put them aside here. The crucial point is that in a sentence such as 'it's raining', the location is not an unarticulated constituent. Location is not part of the truth conditional content of the proposition. It is part of the contextually specified domain within which the truth conditions of the proposition are verified.

One obvious advantage of the approach presented here is that it avoids duplicating information. According to truth conditional semantics, in order to determine the meaning of a sentence we must understand the truth conditions of the proposition the sentence expresses, how the world needs to be for that sentence to be true. We then establish the truth value of the proposition by comparing the state of affairs described by the sentence with the way the world is. Under an unarticulated constituent analysis of the sentence 'it's raining' the location information is part of both the proposition and the domain of interpretation. Its interpretation would be represented as follows:

22. ‘it’s raining [in Palo Alto]’ is true iff it’s raining in Palo Alto

We need to use context to fill in or expand the proposition and then use the context again to verify the truth of the proposition with respect to the domain of interpretation. Under the analysis presented here it is only necessary to access the context once, as part of the domain of interpretation during the process of verification.

We saw above that one of the main advantages of semantic minimalism is that it draws a neat line between semantics and pragmatics. Contextually specified information is not always easy to pin down. In Perry's original example, the
unarticulated place constituent is specified as ‘in Palo Alto’. There are a number of other equally good alternatives, however. The unarticulated constituent could be more specific, e.g. ‘in the speaker’s garden’, or ‘outside the speaker’s window’. It could be more general, e.g. ‘in the state of California’ or ‘on the west coast of America’. If we allow contextual information into the proposition we will never be able to say with any certainty what exactly the proposition expressed is. Keeping contextual information out of the proposition, as suggested here, and restricting it to the contextually specified domain of interpretation, means that we can keep our propositions and our semantic theory simple.

In this section I have sketched a way of accounting for the unarticulated constituent data without appealing to unarticulated constituents. If the contextual information is only ever part of the contextually specified domain or interpretation, accessed only when the truth of the proposition is verified, then we can maintain the idea that the proposition expressed by a sentence is the minimal proposition, and that the structure of the proposition is determined by the structure of the sentence that expresses it. A full elaboration and defence of these ideas is left for future research.

5. Conclusion
The aim of this dissertation has been to defend the thesis that the structure of a proposition is determined by the structure of the sentence that expresses it. If (as is commonly assumed) both sentences and propositions have structure, it seems reasonable to hypothesise that there is a link between the two. Moreover, if we accept that sentences have structure then it seems reasonable to hypothesise that this structure has some communicative function. I have argued that syntactic structure contributes to meaning. Syntactic structure has semantic value just as lexical items do. Although different languages have different syntactic structures, these different configurations represent the same relationships. In the same way as different lexical items in different languages can have the same semantic value, different syntactic structures (or indeed case morphology) in different languages can also have the same semantic value.
The theory of propositions defended by Jeffrey King builds on this intuition that syntactic structure has semantic value. For him, propositions are facts created by speakers. Speakers use their linguistic knowledge to interpret a sentence. The lexical items are interpreted to provide the constituents of the proposition, i.e. the objects to which the lexical items refer; the syntactic relations are interpreted to provide the propositional relations holding these constituents together. It is the way that the speaker interprets the proposition that gives the proposition its truth conditions. King’s theory not only provides an answer to the problem of the unity of the proposition, i.e. what provides the structure that holds the constituents of a proposition together, but also to the fundamental metaphysical questions as to what a proposition is and how it has truth conditions. This is why I believe King’s theory is worth defending.

In the second half of this dissertation I examined a particular challenge to my thesis, namely that of unarticulated constituents. There is context-sensitive information that is arguably part of the proposition but not part of the sentence that expresses it. So, according to Thomas Hodgson, the same sentence ‘it’s raining’ can express different propositions in different contexts, one with a place constituent, e.g. ‘it’s raining in Palo Alto’ and one without. Therefore the structure of the sentence cannot determine the structure of the proposition. I argued against this view, by adopting a version of semantic minimalism. If, as proposed by Emma Borg, the proposition expressed by a sentence is a minimal proposition, reflecting the literal meaning of the sentence, then the proposition will contain only limited contextual information and crucially nothing determined by speaker intentions. Under this view, the proposition expressed by a proposition will be the same, whatever the context. There is no longer a problem with unarticulated constituents.

I have provided theoretical and empirical reasons to suggest that the minimal proposition is the best candidate for the proposition expressed by a sentence. The most important of these is that the literal, minimal proposition reflects pure sentence meaning rather than a combination of sentence and speaker meaning. The minimal proposition is the proposition expressed by the sentence. The full
proposition, including unarticulated constituents dependent on speaker intentions, is one of the many propositions expressed by the speaker. I argued above that the minimal proposition is compatible with King’s view of propositions. Although it removes speaker intentions from the proposition, it does not eliminate the role of the speaker. Semantic minimalism requires competent language users in order to form propositions just as King’s theory does. Therefore, semantic minimalism enables us to maintain King’s intuition that it is speakers that create propositions and speakers that give propositions their truth conditions.

Although adopting the minimalist view enables us to maintain the thesis that the structure of a proposition is determined by the structure of the sentence that expresses it, it leaves open the question of how we should account for the unarticulated constituent data. Although some extra context-sensitive information may be encoded via gaps or indexicals in the syntax to be completed by bottom-up, linguistically determined processes, this will not work for true optional unarticulated constituents. I have argued that these data are best accounted for if we remove the burden from the proposition and put it in the contextually specified domain of interpretation. This enables us to keep our propositions simple, as they contain no information reflecting difficult to pin down speaker intentions and avoids duplicating contextual material that will already be present in the domain of interpretation.

One final issue to raise here is that although I have defended the thesis that the structure of a proposition is determined by the structure of the sentence that expresses it, I have not said anything about cases where there is a proposition but no associated sentence. Leaving aside for now the question of whether perception is propositional, as suggested by Soames (2010, 2014b), there is the issue of Gricean implicatures. Even if, as I have argued here, we can eliminate pragmatics from the proposition expressed by a sentence, we cannot eliminate pragmatics completely from our theories of communication. Gricean conversational implicatures are standardly analysed as propositions. They are derived by processes of inference from the meaning of the sentence uttered, but
they do not have their own corresponding sentence from which they can obtain a structure. How then do the propositions associated with implicatures come to have structure if they do not have an associated sentence? There must be some other way of building propositional structure without an associated sentence. This is, perhaps, a more serious challenge to King’s theory than that posed by articulated constituents.

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