# Semantically Charged Syntax and the Construction of Meaning

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Bowers (1993) proposes that the subject–predicate relation is formed by a predication operator (op.), i.e. a function from a property to a propositional function or predicate. This operator heads an independent functional predication projection, as shown for instance in (1a), and it is also lexicalized in certain cases, for instance as in (1b).

(1) a. ...make [PrP John [Pr' [Pr op.] [AP crazy]]]
    b. ...regard [PrP John [Pr' [Pr op./as] [AP crazy]]]

In this paper we will first show, mainly using data from Norwegian, that several types of element may lexicalize the predication operator (section 1). Next, we investigate how meaning is constructed – i.e. how a given projection is determined as to its syntactico-semantic content – in a situation where a semantically uniform operator like the predication operator is variously lexicalized by different visible elements, each with its own specific amount of inherent content (section 2). We then go on to argue that a given visible element is often multifunctional in that it may potentially lexicalize different types of functional operator (section 3). Last, we propose that syntactic representations should be construed as structured objects essentially consisting of functional operators that are made visible by various types of element by insertion and movement, thus suggesting a program for a semantically charged syntax (section 4).

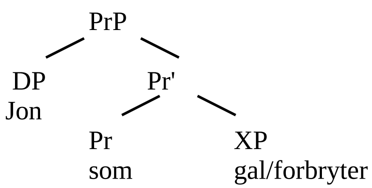
## 1 Lexicalization of the Predication Operator

The Norwegian counterpart to *as* in structures like (1b) is *som*. Thus, we find structures like (2), where we assume that *som* is the lexicalization of the predication operator.

(2) a. ...anse [Jon [som gal]].
       ...consider Jon as crazy
       '...consider Jon crazy.'
    b. ...anse [Jon [som forbryter]].
       ...consider Jon as criminal
       '...consider Jon a criminal.'

The bracketed part of the strings in (2) has the representation shown in (3), where XP is the property phrase which is turned into a predicate by the predication operator lexicalized by *som*.

(3)




In other words, the constituents under consideration here are small clauses, expressing propositions constituted by a predicate (Pr') and a predication subject (DP), which is indeed in accordance with the semantic intuition that we have regarding these constituents. Additional motivation for the claim that we are here dealing with small clauses is the fact that these constituents may contain an expletive or expletive-like subject, as shown in (4).[1]

(4) a. ...anse [det [som altfor kaldt for skigåing i dag]].
...consider it as much-too cold for skiing to day
b. ...anse [det [som uheldig at Jon vil komme]].
...consider it as unfortunate that Jon will come

Following Eide (1998a), Eide (1998b), Eide & Åfarli (1999) we furthermore assume that the copula may lexicalize the predication operator in environments where a verbal head is required, which amounts to saying that the particle *som* is a non-verbal counterpart to the copula. The feature that separates the copula from *som* is exactly the verbal feature [+V] (and thus the capability of supporting tense or other verbal morphology); in all other respects the copula-expression and the *som*-expression seem to pattern together: regarding case, agreement and type of complement selected, see the discussion in Eide & Åfarli (1999: 164 ff.). Generally, the structural and semantic similarities between copula-expressions and *som*-expressions are indicated by the fact that a small clause headed by the particle *som* can as a rule be paraphrased as a full clause with the particle replaced by the copula.

[1] *Det* in (4b) is proably not an expletive subject, but a cataphoric subject referring to the *that*-clause. Nevertheless, the example clearly indicates the clause-like structure of the *som*-expression.

(5) Vi anser [det [som et faktum at hun kommer]] => Vi anser at [det [er et faktum at ...]]
we consider it as a fact that she comes => we consider that it is a fact that ...

Thus, we conclude that in copula constructions the copula lexicalizes the predication operator; i.e. copula constructions have the structure (3) with *som* replaced by the copula.

However, it seems that the predication operator can have still other lexicalizations. Specifically, we propose that *til* 'to' in resultative small clauses like (6a) and *for* 'for' in small clauses like (6b) are lexicalizations of the predication operator. As such, we refer to *til* and *for* as prepositional predication particles (see also Eide 1998b: 71 f.; Eide & Åfarli 1999: 170).

(6) a. ...gjøre [Jon [til forbryter]].
...make Jon to criminal
'...make Jon into a criminal.'
b. ...ta [Jon [for kelner]].
...take Jon for waiter
'...take Jon for being a waiter.'

Indication that this is the correct analysis is the fact that small clauses headed by *til* or *for* (like small clauses headed by *som*) may contain an expletive-like subject, indicating that the bracketed parts in (6) are clausal expressions, cf. (7).

(7) a. ...gjøre [det [til noe skittent at jeg sa dette]].
...make it to something dirty that I said this
'...make it into something dirty that I said this.'
b. ...ta [det [for gitt at jeg sa dette]].
...take it for given that I said this
'...take it for granted that I said this.'

Notice also that the nominal complements in (6) are bare, indicating that the complement is the property phrase of a small clause (like e.g. in (2b)), not the referential complement of a preposition. In the latter case, being a referential argument, the noun phrase is as a rule not bare:

(8) a. Vi snakket til en forbryter / forbryteren / *forbryter.
we talked to a criminal / criminal-the / criminal
b. Vi gir hundre kroner for en kelner / kelneren / *kelner
we give hundred crowns for a waiter / waiter-the / waiter

Like *som*, the prepositional predication particle *til* seems to have a verbal counterpart, namely *bli* 'become'. This is illustrated by the following Swedish sequence from Selma Lagerlöf´s famous novel about Nils Holgersson:

(9) Pojken kunde rakt inte förmå sig att tro, att han hade blivit förvandlad *till* tomte [...] om jag väntar ett par ögonblick, så *blir* jag nog män niska igen.
'The boy could not get himself to believe that he had been turned into a goblin [...] if I wait just a couple of moments, then I will surely be come a human being again.'

We propose that what distinguishes *til* from *som* is an inchoative/directional feature. Similarly, we assume that a corresponding inchoative/directional feature distinguishes *bli* 'become' from *være* 'be'.

## 2 The Content of the Pr-Projection

The underlying predication operator contributes what might be called 'predicative content' to the projection it heads. However, the content of the projection as a whole is also partly constituted by the inherent content of the element that lexicalizes the operator. In cases where the operator is lexicalized by *som* or the copula, the semantic contribution of the lexical element seems to be quite small, and the element is little more than a structural marker of the underlying semantic operator.[2]

However, this is not so in cases where *til* lexicalizes the operator. In such cases, the operator and the lexical element each contributes significantly to the apprehended meaning of the projection. As suggested in the previous section, the particle *til*, which otherwise clearly functions as a preposition, carries an inchoative/directional meaning, and when this element is inserted into the head position of a PrP, the result is the amalgam [pred.op + incoative/directional]. This yields a resultative reading of the small clause PrP.

However, the apprehended meaning of a projection is not exhausted by the content of the operator and the content of the visible element. We also claim that the *complement* of a head typically plays a crucial role in deter-

[2]There are nevertheless some subtleties: *som* yields a more hypothetical reading than does *være* 'be'. Thus, *...se Jon som spøkelse* '...see Jon as a ghost' differs from *...se Jon være spøkelse* '...see Jon be a ghost' in that the former is potentially hypothetical while the latter is not.

mining the reading of the head itself, and its projection (see Pustejovsky 1995 for a closely related idea). This point of view implies a dynamic interpretation of the principle of compositionality (Frege´s Principle), i.e. the principle that the meaning of the whole is a function of the meaning of the parts and their mode of combination.

The principle of compositionality is usually construed as what we will call a principle of static compositionality, characterized in (10), but we propose instead that the appropriate notion is a notion of dynamic compositionality, as stated in (11).

(10) *Static Compositionality (e.g. in model-theoretic semantics):*
"[T]he parts" referred to in the statement of Frege's Principle must be the syntactic constituents of the expression in question. Moreover, the meanings of those constituents must enter into the meaning of the whole expression *in a fixed way*, determined once and for all by the semantic rule corresponding to the syntactic rule by which those constituents were joined. Dowty & al. (1981: 9)

(11) *Dynamic Compositionality:*
The meanings of the parts enter into the meaning of the whole expression, not in a fixed way, but such that the meaning of a given constituent is *affected* by the meaning of the constituents with which it combines.

To show how this works, we will use the notion of dynamic compositionality to explain the different readings associated with the copula, namely the pure predicational reading, the equative reading, the existential/spatial reading, and the temporal reading, see (12).

| | | |
|---|---|---|
| (12) | a. Clark Kent is a man. | (pure predicational reading) |
| | b. Clark Kent is Superman. | (equative reading) |
| | c. Clark Kent is outside. | (existential/spatial reading) |
| | d. Superman is tomorrow. | (temporal reading) |

In fact, the verb is frequently called the copula in (12a) only, but our claim is that (12) contains four occurrences of the same verb, the different readings of the verb being due to the semantic nature of the complement.

In (12a) the complement of the copula is *a man*, a phrase that denotes a property. The predication operator, lexicalized by the copular verb, turns this phrase into a predicate. The relation is depicted in (13). In (12b) the complement of the copula is a phrase denoting a referent, and the only likely copular relation between this referent and the subject referent is the relation of identity, depicted in (14). In (12c) the complement of the copula is a phrase denoting a place, and the verb gets its spatial reading via interaction with the spatial meaning of the complement, depicted in (15).

(13) cop.relation: pure predication

copula property
is a man

(14) cop.relation: identity

copula referent
is Superman

(15) cop.relation: spatial

copula place
is outside

Thus, the apprehended meaning of the copula in a given sentence is determined by three separate, but interacting components: (a) the meaning of the underlying predication operator; (b) the specific inherent meaning of the lexical element making the operator visible; (c) the dynamic meaning formed by the interaction of the copula with its complement. Generalizing this picture, we assume that these three components are always potentially relevant in determining the syntactico-semantic content of a given projection.[3]

[3]Notice that the configurational complement of the predication operator lexicalized by *is*, is a property-denoting phrase in (12a) only. Thus, (12b-d) do not seem to instantiate the scheme in (3), where the complement denotes a property that is input to the predication operator (recall that the predication operator is a function from a property to a propositional function). The problem is that (12b-d) seemingly do not contain a property element that can be input to the predication operator. A similar kind of problem regarding the instantiation of the predication operator by main verbs (cf. section 4), is discussed in Eide & Åfarli (1999: 177). There we in essence propose as a possibility that in cases where a property element cannot be identified by a constituent in the structure, a function is imposed on the lexical element, whose output is a property. In present terms, that function is imposed as part of the meaning of the copular verb by dynamic compositionality. For example, in (14)

Now, turn to (12d), repeated here as (16).

(16) Superman is tomorrow. (temporal reading)

In this case, dynamic compositionality yields a temporal reading of the copula, as indicated. However, this example is particularly interesting because it shows the importance of encyclopedic knowledge in the determination of the semantics of a given string. In (16), the complement of the copula is a phrase denoting a point in time. Therefore, the phrase consisting of the copula and its temporal complement yields the reading *takes place tomorrow*. But in combining this relation with the subject *Superman*, our knowledge of the world kicks in and tells us that the word *Superman* in this case cannot possible denote the referent Superman. A referent couldn't possibly be something that takes place tomorrow – *events* take place, not objects or persons. As a consequence, the straightforward referent interpretation is very unlikely and is normally rejected. The only way we can make sense of this sentence is to assume that *Superman* refers to an event, for instance the event of showing the film about Superman.

This particular example can serve as a reminder that language is never used in a vacuum, but for communicative purposes in a given discourse, against a vast background of encyclopedic knowledge (knowledge of the world). This knowledge narrows down the list of possible meanings relevant in a given context, and turns communicative use of language into more than a fairly educated guess.

## 3 Multifunctionality and Support of Operators

In section 1, we saw that the predication operator can occur in various disguises in Norwegian: the particle *som*, the copular verbs *være*, *bli*, and the prepositional predication particles *til, for*. Given the basic predicational content of the projection headed by these elements, this variation suggests – as we have in fact been assuming – that the syntactico-semantic substance resides, not primarily in the supporting element, but in the abstract operator made visible by the element.

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the underlying predication operator is a function from a property to a propostional function. However, *Superman* denotes an entity. The content imposed on the copular verb can be construed as a function from an entity to a property, which, when applied to the entity-denoting complement, yields a property as output. That (abstract) property in turn is input to the predication operator, yielding a propositional function, i.e. a predicate, instantiated by *is Superman*.

The assumption that the content of a functional projection is not first and foremost derived from the visible element filling the head position, is further corroborated by the examples in (17), showing structures containing Old Norse relative clauses (from Iversen 1972: 153).

(17) a. kringla heimsins sú **er** mannfólkit byggir.
'the world that men live in.'
b. þau helgu orð **en** í bókinni váru.
'those holy words that were written in the book.'
c. gera hús þar **sem** eigi hafi fyrr verit.
'build a house where there had been no house before.'
d. þeir allir, **at** þau tíðindi heyrðu.
'everybody that heard these news.'

As these examples show, the complementizer position (C-position) of relative clauses in Old Norse is made visible by various subjunctions, but as far as we can tell, there is no reason to assume that the C-projections of these clauses have different content.

Now, if it is really the case that the visible element marking a functional head position should be viewed primarily as a positional marker, we should in fact expect that the very same element should possibly be able to make *different* underlying semantic elements or operators visible. This is so since the sparse inherent content that a given visible functional element often has, is compatible with having different syntactico-semantic roles. This expectation seems to be fulfilled.

Thus, *som* may be used e.g. as a subjunction or comparative particle in addition to its use as a predication particle, see (18):

(18) a. Vi spør hva **som** har skjedd. (subjunction)
we ask what *som* has happened
'We ask what has happened.'
b. Han snakker **som** ei kvinne (snakker). (comparative particle)
he speaks *som* a woman (talks)
'He speaks like a woman.'
c. Han snakker **som** sjef for dette firmaet. (predicational particle)
he talks *som* boss for this firm
'He talks as the boss of this firm.'

The syntactico-semantic function or content of *som* is different in each instance, as indicated in the parentheses, and also by the translations (in (18a, b) *som* does not lexicalize a predication operator). Likewise, *være* 'be' may be used as an ordinary auxiliary verb in addition to its use as a copular verb, and *til* ‘to’ and *for* ‘for’ may function as ordinary prepositions, in which case they do not lexicalize a predication operator.

That is, the very same element appears to be capable of being “recycled” in different syntactico-semantic roles, possibly to instantiate different operators. In other words, overt forms are in principle *multifunctional*. Assuming that syntactic elements generally make functional operators visible by “supporting” them,[4] and furthermore assuming that the content of any functional projection is at least partly constituted by the content of the operator and partly by the content of the supporting element or marker, it follows that the supporting element always *underdetermines* the content of the projection it heads.[5]

Summarizing, the fact that not only the same functional form may mark different functional projections, but also that *different functional forms may mark the same functional projection*, indicates that the head of a given functional projection is an abstract syntactico-semantic item, and that insertion of an overt element in that position is not what gives the position its syntactico-semantic identity. Rather, the overt element marks, supports, or makes visible a position that has already got a syntactico-semantic identity.[6]

## 4 The Operator Structure as the Syntactico-Semantic Backbone of the Sentence

[4]Much in the same way as English *do* is thought to support an underlying tense element in so-called *do*-support, see e.g. Pollock (1989), Chomsky (1995: 139-140).

[5]Consider the alternative. If the syntactico-semantic function or content is determined by inherent properties of the element actually filling the head position, the multifunctionality witnessed in e.g. (18) is only possible if the overt element is polysemous, so that there are at least three different *som*. However, it seems to us that polysemy is not a solution, but rather a problem to be solved, and we would like to propose that our analysis suggests a fruitful approach to that problem. According to that analysis, polysemy is an epiphenomenon, derived from the fact that the same form may be used to mark different syntactico-semantic head positions, the content in each case being to a considerable degree determined by the underlying semantic element or operator.

[6]Interestingly, we have become aware that a similar conception is found in the Distributed Morphology approach. Thus, in Harley & Noyer (1999: 7) we read: ‘‘Theories endorsing Separationism are attractive because (a) they allow similar syntactico-semantic forms to be realized in quite different ways phonologically, and (b) they permit polyfunctionality of phonological expressions: a single piece [...] might correspond to a set of distinct and unrelated syntactico-semantic functions.’’ See also Marantz (1997), Halle & Marantz (1993).

Up to now we have been mainly concerned with the predication operator and its lexicalization, although we have suggested that there exist other functional operators, as well. In this section, we would like to pursue the general idea that the syntactic functional projections of a clause are the projections of underlying operators, which are in turn supported by visible items. Specifically, we propose that a syntactic string is the derivative visible expression of a rudimentary I(nternalized)-semantic representation constituted by structurally ordered operator tokens. This rudimentary operator structure can be said to constitute the basic underlying logical form of the sentence.

However, before we discuss the syntactic instantiation of the underlying operator structure in more detail, we would like to sketch how it relates to the over-all semantics expressed by the clause. In fact, it has been proposed that language has no semantics at all, i.e. the claim is that the meaning of clauses is only more or less indirectly related to our general cognitive representations of meaning – our general conceptual structure (Fodor 1998: 9; Jackendoff 1983: 95). Such a view is also expressed in the following quotations from Fauconnier (1994: xx-xxi).

(19) Sentences bring together, in one linguistically homogeneous form, heterogeneous and incomplete information as to the cognitive construction to be performed within a context for the purpose of constructing meaning. Meaning ensues when such operations are performed, but is not itself directly assignable to sentences.

We accept the idea that sentences in some sense function as triggers for elaborate meaning construction or "backstage cognition", to use a phrase employed by Fauconnier (1994: xvii). However, we go against the idea that natural language has no semantics. If that were the case, it seems to us that it would be impossible to get some particular meaning-related "backstage cognition" started at all. The sentence must have *some* amount of semantics, however rudimentary, in order to trigger some *particular* meaning construction, i.e. a given sentence does not trigger *any* thought; it triggers a *corresponding* thought. In fact, we read the quotation from Fauconnier in (19) as a statement to this effect.

Our proposal is that the back-bone of this "information" is the operator structure alluded to previously. Moreover, we assume that this rudimentary operator structure is related to the syntactic structure of the sentence in a homomorphic fashion. In that respect we adopt as our general point of view the framework of selective Grammar Semantics developed in Bouchard (1995), in particular the principle of "Full Identification" which says that every (morpho-)syntactic formative of a sentence must have a corresponding element in the semantic representation, and that every formative of a semantic representation must be identified by a (morpho-)syntactic element in the sentence, which is associated with that representation (Bouchard 1995: 22). In other words, the grammar semantics directly *expressed* by a clause must be distinguished from the semantics that *results* from the clause.

On the assumption that syntactic structure expresses the operator structure in a homomorphic fashion, our method will simply be as stated in (20):

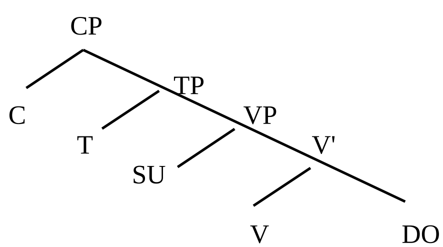
(20) To find the I-semantic representation of a sentence, identify the syntactic elements and relations and find their semantic correlates.

Notice that we are committed to the view that any *visible* syntactic element/relation has a corresponding semantic element/relation. However, we will still leave room for semantic elements/relations that are not *directly* expressed in overt syntax.[7]

Let´s see how this approach works. The consensus on the basic syntactic structure of clauses in the last fifteen years or so is roughly that they consist of at least two functional projections – a C-projection and an I- or T-projection – on top of the basic lexical VP, which expresses the basic proposition. There are several variations on this theme, with various proposals regarding the number and order of functional categories, the most recent Chomskyan analysis assuming a so-called light verb projection on top of the VP (Chomsky 1995: 315-316). However, for reasons that will be mentioned below we will assume the simple CP-TP-VP structure depicted in (21) for a clause employing a transitive verb.

We propose that the C-projection and the T-projection have the operator correlates shown in (22), which, to use a metaphor, may be seen as semantic seeds that the syntactic structure grows out of.

(21)

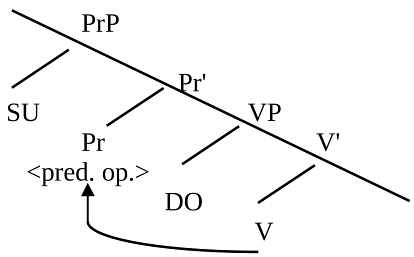



[7]We assume that the number and types of functional projections that languages employ may vary from language to language, and even from clause type to clause type within the same language, see Åfarli (1995), Thráinsson (1996) for motivation.

(22) a. Semantic correlate of C: basic force operator (interrogative, imperative, declarative), cf. Stenius (1967), Kitahara (1997: 9), Elvsaas (1998).
b. Semantic correlate of T: tense operator (e.g. Pollock 1989)

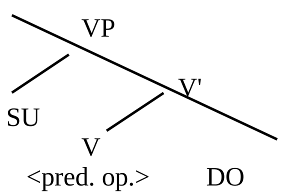
What about the lexical V-projection? Given our earlier adoption of Bowers (1993) regarding the analysis of secondary predication (i.e. non-finite predication), it seems natural to adopt Bowers´ analysis of the nexus of the full clause, as well. Bowers argues that the verb phrase is non-unitary with the basic VP being the complement of a Pr-projection. The main verb obligatorily lexicalizes the predication operator by raising from V to Pr in a (partial) representation like (23).

(23)




However, contrary to Bowers´ non-unitary analysis of the verb phrase and in keeping with our analysis of the copula, we have argued elsewhere (Eide & Åfarli 1999: 171ff.) that the predication operator is directly lexicalized by the main verb, so that the V-projection may be said to be a joint projection of the predication operator and the main verb. Thus, we claim that the structure of the verb phrase is not as in (23), but rather as in (24).[8]

(24)

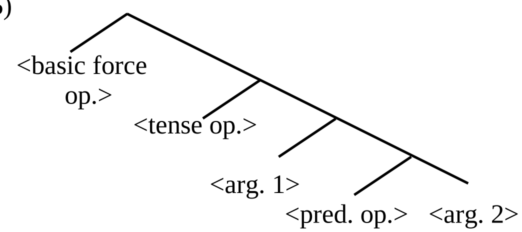



[8]The projection of a predication operator lexicalized by a (main) verb could be labelled either V or Pr. We have chosen V since intuitively the verbal content of the verb (Theta-properties etc.) is at least as important for the nature of the projection as is the predication operator.

In other words, our analysis amounts to a chunking of the attributive content of the verb and the predication operator.[9]

On the basis of the above reasoning, we hypothesize that the syntactic structure shown in (21) corresponds to, i.e. is the visible counterpart to, the I-semantic structure shown in (25):

(25)




Consider how the functional operator tokens in (25) are made syntactically visible. We assume that each operator has a designated slot for an overt element that makes the operator visible, so one way of making for instance the predication operator visible is for *som* or a verb to fill that slot. Technically, we adopt the device proposed in Rizzi & Roberts (1996: 106) whereby incorporation is construed as substitution into a subcategorized slot of the head. Thus, "where an incorporation trigger $X^0$ has the feature [$+Y^0$ __ ], this means that the slot for $Y^0$ is base-generated within $X^0$, triggering substitution of $Y^0$..." (ibid.). In the predication operator case, *som* or a verb is substituted into the subcategorized slot of the predication operator.

Next, consider the tense operator. The tense operator may be made visible by the insertion of an overt particle into the visibility slot. This is the strategy typically employed in Creole languages, where specific particles mark tense, see e.g. Muysken (1981). A sample of such tense particles in some Creole languages is shown in (26):

| | | | | |
|---|---|---|---|---|
| (26) | Hong Kong Macanese | *ja* | Jamaican | *ben* |
| | Haitian | *te* | Negerhollands | *ha* |

[9]This chunking is otherwise motivated on grounds of processing efficiency, see Jackendoff (1983: 125), Bouchard (1995: 95). Notice also that our proposal amounts to a restoration of the Port Royal idea that a given verb is constituted by a concealed copula (expressing the predication operation) and an attribute (expressing the conceptual content of the verb), cf. Buroker (1994: 14ff.) and Arnauld & Nicole (1996 [1662]: 78ff.).

In other languages, tense is marked by a tense affix on the verb, which we take as indication that the verb has been raised to the tense operator. Thus, in such languages the tense operator is made visible by movement (analyzed as a complex operation involving insertion as a subpart).

Similar reasoning applies to the C-projection, assuming it be the projection of the basic force operator. The force operator is typically made visible by verb movement in V2-languages, as shown in the Norwegian examples in (27).

(27) a. Hva$_j$ **har**$_i$ Jon $t_i$ sett $t_j$? (wh-question)
what has Jon seen
'What has Jon seen?'

b. **Se**$_i$ (du) $t_i$ dette! (imperative)
see (you) this
'See this!'

In sum, there are two main mechanisms that language uses to make a functional operator visible. Either an element is directly inserted from the lexicon or an element is inserted from some other position in the structure (by movement). In other words, there are two main means of "supporting" a functional operator.

One interesting idea implied by this, is that movement is semantically driven, not feature driven as is assumed in current Minimalist syntax. That is, verb movement is "semantically" motivated in order to make functional operators visible (see Roberts & Roussou 1997 for a related idea). Thus, we want to reinterpret the feature driven movement (Last Resort, feature checking) assumed in Minimalist syntax as movement triggered by the need to fill the visibility slot of semantic operators. Roberts & Roussou (1997) note several problems with the mechanism of feature checking, among others that it introduces features into the derivation whose sole purpose is to be deleted, and that it requires the presence of the same feature twice. However, if movement (and insertion) is triggered by a general requirement (possibly subject to parametric variation) that the visibility slot of semantic operators is filled, these problems are eliminated. In fact, we see the Minimalist reinterpretation of movement as Attraction (Chomsky 1995: 297) as a step in this direction. This reinterpretation shifts the triggering factor from the lower, moved element to the upper element that the moved element is checked against, which in our analysis corresponds to a functional operator.

## 5 Conclusion

We have shown that the predication operator (Bowers 1993) is lexicalized by various overt elements in Norwegian (the predication particle *som*, copular verbs, prepositional predication particles, main verbs). Moreover, observing that the elements that may lexicalize the predication operator often have syntactico-semantic functions besides making the predication operator visible, we concluded not only that the content of a functional projection is primarily constituted by an abstract underlying element or operator, but also that the visible elements are possibly, even typically, multifunctional, often vastly underdetermining the functional projection they head. Generalizing that idea, we hypothesized that the syntactic structure is really the homomorphic instantiation of an underlying semantic structure consisting of an ordered array of operators such as a predication operator, a tense operator, and a basic force operator, to mention the minimum of operator types that we assume are present in finite main clauses in Norwegian. Thus, we in effect propose the outlines of a program for a semantically charged syntax with semantic operators rather than features (as in current Minimalist syntax) as the driving force for head insertion/movement.

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