DPs as complements to cIause-taking predicates

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The problem:
Much studied, puzzling patterns of complement taking.
These patterns have proved difficult to even describe without recourse to "selection" (for semantic type) and "subcategorization" (for syntactic phrase).

These are by nature stipulative. Moreover it has been difficult to relate them systematically. And they don't quite work.

The goal:
To explain the complex patterns by relating them to simple and observable properties of verbs and complements.

To eliminate "selection" and "subcategorization" in favour of compatibility. I.e. principled constraints on combinations in place of stipulations.

The case study:
The group of verbs analyzable as having the abstract predicate SAY as their complement determining element. (Grimshaw 2015, Anand, P, V. Hacquard and Jane Grimshaw (in press.))
Main and subordinate clauses that combine with these verbs.
DPs that combine with these verbs.

Section 1 Combining main and subordinate wh clauses with clause-taking predicates

1.1 Combining clausal complement taking verbs with subordinate clauses

1) Verbs in combination with **subordinated** wh clauses:

	SAY	other
Only **wh** clauses	*ask, inquire, wonder*	*measure, investigate, analyze…*
Both **wh** and *that* clauses	*announce, report …*	*decide, know …*
Only *that* clauses	*assert, claim, propose…*	*believe, hypothesize…*

2)   a.   She asked how wide the table was
        b.   She measured how wide the table was.
        c.   She reported/decided how wide the table was
        d.   She reported/claimed/decided that the table was 3 feet wide.

1.2   **Combining clausal complement taking verbs with main clauses**

Main clauses have Illocutionary Force. (Here Assertion, Question).

One kind of complement-taking verb, the SAY verbs, combine with main clauses under certain conditions, one of which is quoted main clauses.

These quotes are copies of a sentence uttered by some source. The copied sentence is a main clause. Therefore the form of the quoted clause is that of a main clause. e.g. the subject must follow an auxiliary verb, and an indexical such as "I" refers to the original speaker.

The examples in (3) and (4) show that *ask* combines with a main clause in reporting question events, not assertions, statements.

3) a. The president **asked** "**What should I do next?**"
    b. "**What should I do next?**" (the president **asked**).

4) a. *The president **asked** "**My plan has succeeded**".
    b. *"My plan has succeeded" (the president **asked**).

5)   SAY [Q-Force] is lexicalized as *ask.*

    Where SAY is the universal abstract predicate argued for in Grimshaw (2015).

Force compatibility requires that the complement of SAY-[Q-Force have the force of a question, explaining the ill-formedness of the examples in (4).

Replacing SAY- [Q-ForceJ with a verb that reports assertions such as *assert,* reverses the judgements in (3) and (4):

6)   a. *The president **asserted** "**What should I do next?**"
        b. *"**What should I do next?**" (the president asserted).

7)   a. The president **asserted** "**My plan has succeeded**".
        b. "**My plan has succeeded**", the president asserted.

8)   **SAY [A-Force**...] is lexicalized as *assert* ...etc.

Only SAY verbs can combine with quoted main clauses, because only they combine with ForceP. Uniquely the SAY verbs classify/report speech events by illocutionary force.

1.3 Force Compatibility

When SAY verbs combine with a main clause, the clause reports both the content ("what was said") and the Force associated with it.

SAY must have a ForceP complement.
ForceP must be specified for Force

Force Compatibility: the Force specified in Force P must be compatible with the Force required by the embedding predicate. To put it another way: these embedding predicates express / lexicalizes both SAY and Illocutionary Force.

  Hypothesis strong version: all selection and subcategorization stipulations can be eliminated.

  The complementation properties of the SAY verbs are predictable from properties of SAY, plus the properties of the morpheme which realizes SAY and determines the illocutionary force of the reported event.

   Only SA Y verbs report speech event contents and their illocutionary force.

  [Note: the semantic field of saying is not linguistically uniform. Many verbs do not report the content of speech acts or the Force. Of speech acts: *discuss, speak, utter .. .* These are not instances of SAY.]

(9)
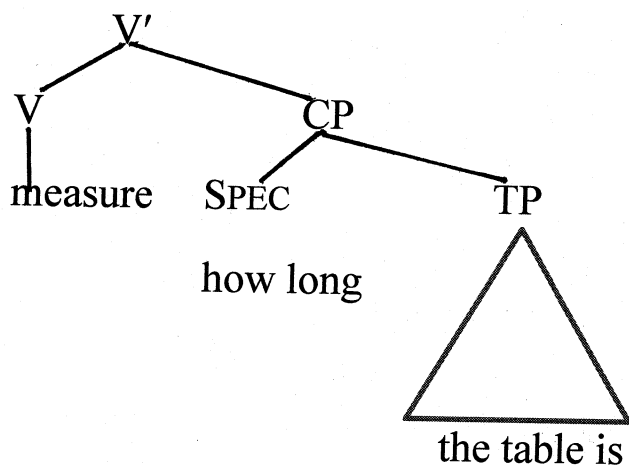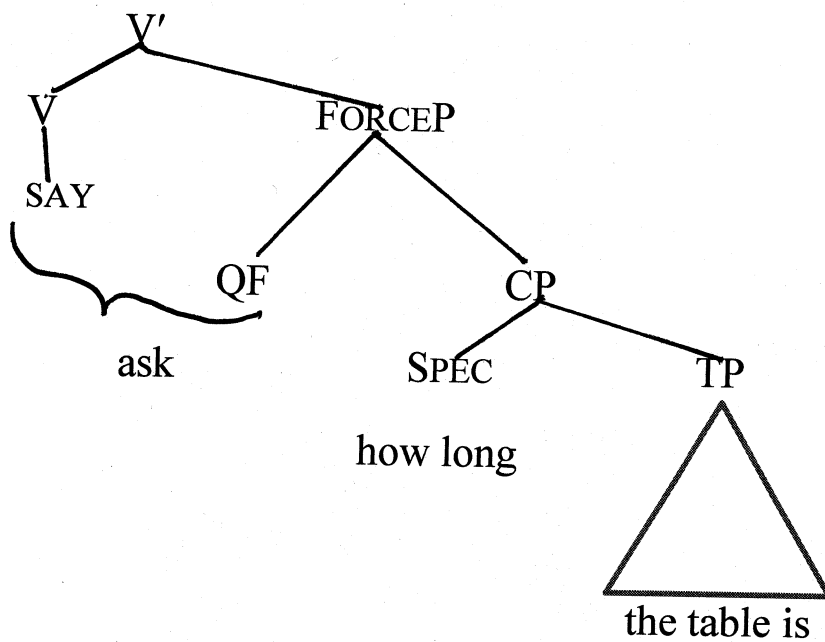
Verbs which do not have SAY as their complement-taking element, including *measure, investigate, analyze* together with *decide* and *know* in the table in (1), do not take ForceP as complement. They combine with the CP directly. [This is why the complements look the same in English, obscuring the difference in analysis.]

Section 2   Combining SAY-verbs with subordinate clauses

10)   Paradigm for clauses:

V with CP complement	Reports	Force
ask wh-CP	reports question events	Q-Force
assert that-CP	Reports assertion events.	A-Force
announce wh-CP	reports assertion events	A-Force
announce that-CP	reports assertion events	A-Force

2.1 SAY [Q-Force] and SAY [A-Force]

SAY-[Q-Force] verbs, which combine with interrogative main wh clauses, combine with subordinated wh clauses only, and not with other subordinate clauses.

11)   a. Sally **asked how wide** the table was.
          b.*Sally **asked that** the table was 3 ft wide.

These verbs never combine with *that* clauses because *that* clauses are not compatible with [Q-Force]. With these verbs, subordinate and main clauses seem to follow the same pattern.

SAY verbs like *assert, claim, propose* are incompatible with interrogative main clauses, but compatible with declarative main clauses, which are assertions.

These verbs lexicalize SAY [A-Force]. Assuming that *that* clauses are compatible with [A-Force], these verbs are expected to combine with *that* complements, as they do.

12)   Sally **asserted / claimed / proposed that** the table was 3 ft. wide.

Here again, the subordinate case seems to match the main clause case.

However, a large number of SAY verbs combine with both wh and *that* complements.

13)   a. Sally **reported/announced how wide** the table was.
          b. **Sally reported/announced that** the table was 3 ft. wide

5

The widely assumed solution is that the wh clauses are interpreted like questions, and are shifted by answerhood operators into meanings that constitute answers to questions. (Dayal, Heim). The verbs that have such complements have been separated and labelled as "resolutives" (Ginzburg, and Sag) or "responsives" (Lahiri).

The evidence from main clauses shows that these verbs are lexicalizations of SAY [A-Force].

14)   a.*Sally reported / announced "How wide is the table?"
        b. Sally reported / announced "The table is 3 ft. wide".

This conclusion is supported by the interpretation of these clauses in discourse. The wh clause in (13) cannot report an event in which she asks how wide the table was. Instead it reports an event in which she asserted how wide the table was. The same generalization holds when these verbs have DP complements which do not encode +/-wh.

Both wh and that clause forms report assertions, but they report the assertions in different ways. (literal vs assessed).

Hypothesis: a wh-structure is a CP which can be embedded within a Q-ForceP or an A-ForceP. It is not specialized for questions/interrogatives. [The wh structure is widely found in English: exclamations, free relatives, relative clauses, *how* complementizer...]

Therefore wh clauses do not encode Q-Force. Nor do they encode A-Force. **The Force of a wh clause is imposed by the verb via Force Compatibility.**

[The SAY verbs which take ONLY wh complements are *ask wonder inquire.* ie. there are only 3 of them. Plus possibly a few low frequency/variable judgements e.g. *query.*]

Marginally noted in the literature; Non SAY verbs which take wh complements only: *investigate, research, measure.* Hypothesis: these wh complements denote issues, not (discourse) questions.

2.2 SAY verbs which do not encode Force

Two examples:
(i) The verb *say* A "light" verb

(ii) SAY-by-means verbs "manner of speaking"

These verbs are compatible with main clauses of all Forces.
They are not compatible with subordinated wh clauses with question interpretations:
they only report assertions.

15)   Sally said / shouted / mumbled when her flight left.

Line of reasoning: neither the verb nor the clause encodes Q-Force. So a SAY verb plus a wh complement lacks a Force specification altogether, which is ill-formed.

Question: Where does the A-Force come from for the good readings in 15). Is it a defau1t?   How would this be understood?

Section 3 SAY-verbs with DP complements: patterns of Force Compatibility

3.1   DPs headed by nouns which cannot code Force

Nouns which denote individual objects in the world are never possible. (house, dog, book ...).
Nouns which denote events are possible with some verbs e.g. *announce* and *report.*

3.2   Language-related DPs which are not compatible with Q-Force or A-Force verbs

16)   He shouted a few words / mumbled a few sentences.

        He said a few words / a few sentences.

DPs such as those in 16) with *lexical heads* which denote linguistic units are not compatible with Force encoding SAY-verbs, because they cannot denote entities with Force. They denote lower level units in the speech act system, which can be *used in* performing speech acts. (Austin 1962; VIII, Moltmann 2017; Sec 3).

17)   # He asked / asserted / announced *a few words* / *a couple of sentences...*

7

DPs with these lexical heads are compatible with verbs from the semantic field which are not Force encoding: *say* itself, and those SAY-by-means verbs which are specific to language (not, e.g., *groan* or *moan.)*

18)   He shouted a few words / mumbled a few sentences.
       He said a few words/a few sentences.

Bleached nouns (here *something*) also appear in reports of speech events. *(ask, assert, announce)*

19)   X says: **My flight leaves at 6**.
       Y asks: What just happened?
       Z replies: X **asserted** something or: X **announced** something.
                      #X **asked** something

20)   X says: When does my flight leave?
       Yasks: What just happened?
       Z replies: #X **asserted** something. or: #X **announced** something.
                      X **asked** something.

21)   **Force Compatibility:**

The verb *ask* reports question events, *assert* and *announce* report assertion events. Another way to frame it: *something* must refer to a statement in 19) and a question in 20).

3.3   DPs which are compatible with Q-Force or A-Force verbs

A concealed question is a DP (normally definite and singular) which has a "question meaning".
In practice this criterion picks out DPs that can be paraphrased by a wh clause. (Since the paraphrase relationship is un-analyzed, and wh clauses do not all have the same meaning the criterion is problematic). In clear cases, the nominal and clausal variants do seem to describe the same event.

22)   a. She asked **the price of the pen.**

       b. She asked **what the price of the pen was**.

Hypothesis: the DP complement is compatible with Q-Force, but does not itself encode Q-Force. **In this proposal subordinate wh clauses and DPs have parallel analyses: they are compatible with Q-Force but not intrinsically Force encoding**.

Prediction: Concealed questions (Le. "question" readings for DPs) should be possible for Q-Force verbs only. They should be impossible with A-Force verbs and with verbs which have no Force:

23) a. *He claimed / asserted the price of the pen.

     b. #He reported / announced the price of the pen.

24)   #He shouted the price of the pen.

The issue here is not well-formedness but meaning, only 23)a is ungrammatical. But speakers judge that the examples marked with # cannot report question events.
.
The same is true for potential concealed questions with all SAY verbs which have no Force: they cannot report question events.

25)   #He shouted / murmured / whispered the price of the pen.

Prediction/Conclusion: concealed questions, i.e. reported discourse questions in definite

DP form, are possible only with Q-Force SAY verbs.

[Alert wrt the literature.

Most examples of concealed questions in the literature are not complements to SAY verbs, ie they have no essential relationship to questions in the discourse sense. E.g. *We measured the height of the building*. These do correspond to wh complements i.e. they can be paraphrased by a wh complement. But as we have seen, it is not true that all wh complements are interpreted as questions in the discourse sense. The same logic holds for definite DPs.**]**

3.5   The problem of DP complements to CP taking verbs

Of the three SAY verbs which report question events only *(ask, wonder, inquire),* only *ask* allows concealed questions like *the price of the pen.* He asked I *wondered I *inquired the price of the pen.

Hypothesis under investigation: this may reveal a sense distinction with respect to the morpheme *ask,* which is absent for the other two verbs. This would be related to the large frequency differences, and also to other possible complements to *ask,* such as objects headed by *question:*

26)   He asked a question / several questions / the same questions.

27)   *He wondered / inquired a question / several questions / the same questions.

9

3.6 DPs which are unexpectedly compatible with *wonder:* Anaphoric DPs

wonder is possible with DP complements in certain cases: (Pesetsky 1982, Nathan 2006).

28)   She asked how old the teacher was and he asked *the same thing*.

29)   He wondered *that* too. He wondered *the same thing*.

Cf: *something in* 19) and 20); *the same thing; this; that; something else ....*

Hypothesis: These DPs are analyzed as having no Lexical Head, which makes them compatible with a wider range of predicates. (Requires further exploration)

The amnesty does not extend to *inquire*:

30)   *He inquired something. *He inquired that too. *He inquired the same thing.

Possible solution: there is another case of *wonder* which does not require its complement to bear Force, and this is not the case for *inquire.* Such a step again requires separating the morpheme from its semantic analysis or analyses.

4. Conclusion

The domain of clausal complementation is highly structured and combinations are highly predictable, but only if some sharp distinctions are made. These include:

- The nature of the embedding predicate: here SAY predicates with and without Force.

- Similarities and differences among complements: here main and subordinate clauses, DPs.

- Systematic properties of the meaning (not just the form) of complements: here discourse question versus other meanings.

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