The 25 entries in this bibliography constitute a survey of the linguistic literature related to coivs (Connection-of-Ideas Verbs). The bibliography is divided into three sections. In Part 1, the introductory remarks, coivs are described and classified; and examples of dative, parenthetical, and quotative coivs are given. Part 2 considers the literature on coivs, touching briefly on those of philosophical interest, but dealing mostly with the general semantic or syntactic properties of the class. In addition, the relationship of coivs to raising is considered. A list of explanatory footnotes is included. The third part consists of the bibliographic citations. (LG)
A coiv (connection-of-ideas verb) is an English verb that occurs in the frame

\[(1) \quad S \quad ((to) \ NP) \ S\]

that is, simultaneously with sentential (or indisputably desentential) subject and object, as in

(2) That he had a false beard on suggested (to us) that he was a spy.
(3) Her learning to speak Mandarin fluently showed (the sceptics) how successful operant conditioning could be.

Such sentences assert that the proposition expressed by the subject clause supports a conclusion, expressed by the object clause. Different verbs describe different degrees of support, different attitudes towards the conclusion, and different types of relationships between the two propositions.\(^1\) Because of their occurrence in (1), Ross 1973:549 calls coivs bisentential verbs.\(^2\)

A coiv's subject clause is always understood factively. Coivs in (1) are stative. Nearly all coivs can occur with agentive subjects:

(4) Margaret suggested (to us) that he was a spy.
(5) George showed (the sceptics) how successful operant conditioning could be.

(in which case the coiv is nonstative and differs in meaning from the verb in (1)). The few which do not are marked (-A) in the list below. The occurrence of coivs with both factive and agentive subjects makes them a subclass of the FA (factive-agentive) verbs (Stampe 1968:137ff.); because coivs, unlike the 'psych' FA verbs frighten, astonish, etc., can take that-clauses as objects with both factive and agentive subjects, Stampe calls coivs FA-t verbs. All coivs can occur with concrete subjects:

(6) The blood on the staircase reminds me that caution is necessary with this fellow.
(7) His false beard guaranteed that he would be stopped at the border.
The coivs in the list below are classified according to their ability to occur with human objects (whether marked by to, as in (2), or unmarked, as in (3)) when they also have sentential objects. Such human objects are referred to as dative in the following discussion. The occurrence of coivs with simultaneous dative objects and phrasal objects is discussed in section B.

Coivs

1. Dative obligatory (unmarked only): acquaint with, awaken to, apprise of, assure, convince, inform, instruct, notify, persuade, remind; various complex constructions, like let one know/realize ..., make one think/realize/believe..., make one sure/certain/ convinced..., cause/require one to believe/suppose....

2. Dative perhaps obligatory (unmarked only): teach, tell, warn.

3. Dative optional
   a. Unmarked: guarantee, show.
   b. Marked: argue, betray, communicate, convey, demonstrate, emphasize, establish, explain, hint, illustrate, imply, indicate, intimate, make a case, mean, proclaim, prove, reveal, say, signal, signalize, signify, suggest, testify; questionable point out, betoken [-A], denote [-A]; various complex constructions, like be/give a sign/an indication/ proof/evidence..., make it clear/known/understandable....

4. Dative perhaps permitted (marked only): foretell, point to, predict, verify.

5. Dative prohibited: entail [-A], insure, make it sure/certain..., necessitate (?-A), presuppose.

Most coivs occur as parenthetical verbs, as in

(8) Douglas, Shirley hinted (to us), was a Lapsarian.

Preserving the classification above, I list my judgments:

Parenthetical coivs

1. All except acquaint and awaken (dative obligatory).

2. All. Dative obligatory for tell, optional for teach and warn.

   b. All except make a case, mean, signalize, signify, perhaps betray, and the marginal betoken and denote. Dative optional.

4. All except point to. Dative optional.

5. None.
Also, many coivs occur as quotatives, as in

(9) 'I'd like to see your macramé', Derek reminded (her).

Again, I give my judgments, using the same classification:

**Quotative coivs**

1. *Appraise, assure, inform, notify* (dative obligatory); *instruct, remind* (dative optional)


3. Dative optional:
   a. *guarantee*
   b. *argue, communicate, emphasize, explain, indicate, proclaim, reveal, say, suggest, testify, point out*, and perhaps *hit, intimate, and signal*.

4. *Predict* (dative optional), *foretell* and perhaps *verify* (dative prohibited).

5. None.

B. The literature

Several coivs (*explain, imply, mean, predict, presuppose, prove, say, signify, verify*) have been of philosophical interest and have therefore received considerable discussion in the philosophical literature. However, little of this material bears on general semantic or syntactic properties of the class. The extensive treatment of *mean*, for instance, largely concerns examples like

(10) 'Indolent' means lazy.

for which there are no analogues with other coivs.

Stampe 1968 examines the grammar of *mean* to support two philosophical theses: (a) that objects of *mean* are not referring expressions and (b) that sentences like

(11) A lantern placed in the tower means that the invasion is by sea.

are ambiguous, having one reading with the syntactic source

(12) By a lantern placed in the tower Agent means that the invasion is by sea.

(supporting the philosophical analysis of 'nonnatural' *mean* by Grice 1957; cf. also Grice 1968) and another with the syntactic source
The fact that there is a lantern placed in the tower means that the invasion is by sea.

Stampe is careful to indicate a number of ways in which mean has properties different from other coivs. Davis 1970 criticizes Stampe's (a) arguments and supports the contention that (11) is transformationally related to (12), but argues further that (12) derived from

Agent uses a lantern placed in the tower to mean that the invasion is by sea.

or

Agent uses a lantern placed in the tower, by which Agent means that the invasion is by sea.

Coivs figure, without detailed comment, in some early transformational works; Lees 1960:23 lists two subclasses ('Vt412 demonstrate, mean, prove, show, signify, ...' and 'Vt43 convince, inform, persuade, tell'). A Harris-transformational description (Vendler 1968:7b) lists coivs in what is essentially the factive-agentive class: 'Vt4: surprise, astonish, shock, imply, entail, indicate' (where Ct indicates a container element for a nominalization, V that the container is a verb, + that the nominalization appears in subject rather than object position, ad that the nominalization can be either a that-clause or Poss-ing complement). Oddly enough, coivs do not seem to be mentioned as a class in the Indiana University lists of word classes (Alexander and Kunz 1964, Bridgeman et al. 1965), the Kiparskys' discussion of factivity (Kiparsky and Kiparsky 1970), or the UCLA grammar (Stockwell, Schachter, and Partee 1973).

It suggests itself to me that Harry is a liar.

supports Lakoff's criticism of Rosenbaum's earlier treatment of subject movement, because this treatment requires Extraposition to precede Reflexivization, whereas the derivation of (16) requires Reflexivization to precede Extraposition. But Postal ms.: sec. I.D argues that the Lakoff criticism depends upon the (inadequate) view that Reflexivization is a replacement rule requiring full constituent identity and that in any event, the reflexive in (16) 'does not seem to correspond to any argument in logical structure'.

Lee 1969:52 lists verbs taking 'subject' by-clauses, as in

The bloodstain proved to us that Max was the murderer by being of Type AB.

His class II (prove, demonstrate, show, verify, imply, foretell, emphasize, guarantee, betray) contains only coivs, and his class IV contains some (persuade, remind, convince, teach; but order encourage, challenge, force, doom are not coivs). Lee speculates that all the subject by-clause verbs 'are causative and take sentential objects'. In later sections (6 and 7) he argues that
sentences with subject by-clauses are derived by extraction from a subjectless structure—for (17), roughly

(18) \( \emptyset \) proved to us [that Max was the murderer] by [the bloodstain be of Type AB]

(cf. (12)). In Lee 1971 it is argued that "the verbs in indirect causative constructions like (2), (3), (6), (7), and (17)" are decomposable into cause plus another verb, but the verbs in direct causative constructions like (4) and (5) are not" (L-86); as in the earlier work, the subjects of indirect causatives are analyzed as deriving from by-clauses.

Bresnan 1970:304-5 appeals to coivs in an argument that complementizers subcategorize verbs, citing the contrast between the following:

(19) For him to eat cabbage means nothing.
(20) *This means for him to eat cabbage.

and the ungrammaticality of

(21) *For him to eat cabbage means that he will be sick.

To my knowledge, the constraints on subjects and objects (both phrasal and clausal) of coivs have never been investigated in detail.

Of the coivs, only the following seem to act as to-Dative Movement verbs when they have phrasal, rather than clausal, objects: promise, show, signal, teach, tell, and marginally explain. Green 1971:sec. IV.B.1 notes that although teach and show occur in both

(22) Mary taught linguistics to the class.
(23) Mary taught the class linguistics.

these sentences are not in general paraphrases, and for these two verbs the marked dative doesn't occur with abstract subjects and occurs with many fewer sorts of abstract objects than the unmarked dative (cf. Gruber 1965:sec. 7.2 on teach). In the next section she argues for the derivation of (22) and (23) from structures like those underlying (24) and (25), respectively:

(24) Intending the class to learn linguistics, Mary taught the class.
(25) Mary got the class to learn linguistics by teaching the class.

Also, in sec. III.C.2.e she suggests that explain (along with describe, recommend, recount) might be a for-Dative Movement verb rather than a to-Dative Movement verb. This leaves only promise, signal, and tell as clear to-Dative Movement coivs.

In a footnote (sec. IV.B.1), Green argues that the Internal Sentential NP Constraint, (3.27) of Ross 1967, is not responsible for the restriction involving abstract objects of teach and show.
In Ross 1973 it is maintained that the anomaly of sentences like

\[(26) \text{*It proves/shows/indicates/suggests/means/implies/}
\text{entails that he is unfond of me that his finger-}
\text{prints were on my throat.} (549)\]

is due to the Same Side Filter: 'No surface structure can have both complements of a bisentential verb on the same side of that verb' (554).

The relationship of coivs to the rules of Equi-NP-Deletion and Raising is of some interest. All the coivs of groups 1 and 2 in section A above govern Equi, with the exception of assure and the possible exception of inform. Note that Grosu 1971:ch. 3 claims that Equi-governing verbs are all decomposable into \text{CAUSE TO COME TO X}, where X is a construct, like \text{INTEND}, requiring identity between its subject and the subject of the S embedded in it. The remaining coivs (groups 3 and 4) govern Raising rather than Equi, if they govern either rule; a list is given below. Some also occur with \text{as} constructions (Postal ms. 1972:sec. VI.C):

\begin{itemize}
\item (27) Alice revealed that Jordan was the culprit.
\item (28) Alice revealed Jordan \text{ to be the culprit.}
\item (29) Alice revealed Jordan \text{ as the culprit.}
\end{itemize}

These are marked \text{AS} in the list.

Also, most Raising coivs are subject to the Dative Object Constraint (Postal ms. 1972:sec. IX.C), that only pronouns are natural in object position, although full NP objects moved out of object position (by Passive, for instance) are permitted:

\begin{itemize}
\item (30) We argued him to be the long-lost king of Barataria.
\item (31) We argued Ralph Merkin to be the long-lost king of Barataria.
\item (32) Ralph Merkin was argued to be the long-lost king of Barataria.
\end{itemize}

Coivs not subject to this constraint are marked \text{-DOC} in the list.

\begin{itemize}
\item \text{Raising coivs}
\item 3. \text{guarantee, show}
\item \text{argue, betray (?AS), communicate, demonstrate (?AS, -DOC), establish (AS), illustrate, imply, indicate (AS), make a case (AS), prove (-DOC), reveal (AS, -DOC), signal, suggest (AS).}
\item 4. \text{predict (AS, -DOC), verify (AS)}
\item 5. \text{insure, presuppose (AS, -DOC).}
\end{itemize}
Footnotes

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1. It is perhaps noteworthy that no coivs incorporate negation; deny, conceal, deemphasize, deny, disprove, oppose, contraindicate, rebut, subvert, contravene, contradict, controvert, gainsay, disaffirm, impugn, repudiate, and so on do not fit in (1).

2. Bisentential verbs in this sense must be distinguished from various classes of verbs that have been argued in certain cases to have remote structures with sentential subjects and objects—for instance, causal impingement verbs, as in I hit/pushed the ball over the fence (Fillmore 1971:46-7); stative causatives, like cause, make, require, and two types of nonintentional accomplishments, kill (accidentally) and (animate subject) kill (Dowty 1972); psych verbs (McCawley 1972); and Flip-perception verbs (Rogers 1972).

3. The constructions with give, unlike the simple verbs, occur with both marked and unmarked datives.

4. Also, since Extraposition can be argued to precede Pronominalization, (14) seems to prove that Reflexivization and Pronominalization must be distinct rules.

5. In fact, suggest is the only coiv that occurs in the construction in (16). Moreover, since sentential subjects of suggest are factive but its sentential objects are not, it would be remarkable if Reflexivization were applicable. Presumably, suggest itself is an 'absolute reflexive' (Lees and Klima 1963:24-6), like absent oneself and perjure oneself.

C. Items cited


