

THE LANGUAGE OF EVALUATION*

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Approach, Background and Terminology

While philosophy deals primarily with the search for understanding through formal reasoned argument, rhetoricians and teachers of technical writing are concerned with all forms of substantiation--and they concentrate more on the articulation, organization and general substance of an argument than on its formal validity in a logical sense. Also of common concern to the two groups is the aim to understand, describe and emulate exemplary uses of language; and this involves a resolution to break free from the sterile made-up isolated sentences and arguments of philosophy and traditional linguistics. Instead real efforts are being made to deal with the theory and practice of language in communicative contexts. These common concerns are served by the analysis of short examples of language use, a technique demonstrated in this paper and discussed in detail elsewhere (1).

The specific purpose here is to introduce some of the major principles of how writers and speakers express assessments (including decisions and conclusions) and the basis (or grounds or support or evidence) for these judgments. Although it may be possible to invent three-part syllogisms to explain assessment-basis pairs and thus to claim they are really "shortened" syllogisms ("enthymemes"), the full versions rarely if ever occur in practice, and we will not be concerned with that approach. Instead assessment-basis will be treated as a binary concept, just like other logical relations of cause-effect and purpose-means (2). This treatment is common practice in linguistic discourse analysis as described in works in biblical translation (3), computer language studies (4,5) and language comparisons (6), for example. A summary and extension of the presently-known relations of language, including those of logic, will shortly be available (7).

Some terms used in this paper have slightly different meanings from those in everyday life. Evaluation is a general term that indicates all information that tells readers or listeners how "good" or "bad" a topic is in any of a large number of attributes or features of the topic being discussed. The assessment is the thinking judgmental part of the evaluation, and the basis is any form of support, backing, evidence, grounds or reasoning that provides justification for the assessment. We are dealing, in this introduction, only with supportable assessments, excluding the intuitive or learned assessments of wine-tasters,

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chess-players, etc. and also excluding unsubstantiable opinions from those with no knowledge of the subject.

This paper discusses, in sequence, some principles of evaluation, major methods of signalling the principles, and good/bad transitions. Other related topics are listed as the basis for further study and research.

Assessment and Basis

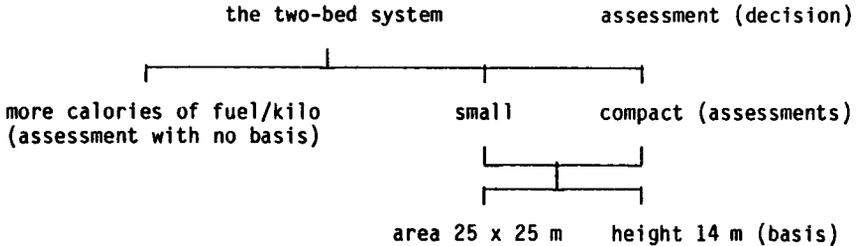
The nature of assessment and basis can be seen by a typical reply to a question about your car's fuel consumption: "Great. I get 5 L per 100 km." The thinking assessment part (Great) is followed by the factual objective basis (5 L per 100 km) on which the assessment is made. In speech, we often include assessment as a tone of voice or a rising or falling pitch when providing basis, and both facial expressions and body language tell our listeners what we think of the information we are presenting--whether we intend to or not. Even in writing, which lacks such paralinguistic communications, it is very difficult to present basis without indicating some form of assessment. The selection of information to include in a report often indicates a writer's perspective and personal judgment; and the order of presentation, use of headings, word choice and even punctuation can provide subtle but important indications of writer assessments. In this introductory discussion, however, we will deal only with clearly-signalled assessments, leaving the subtleties for later discussion.

Some idea of how assessment and basis work in language can be gained from Example 1.

- (1) Stal-Laval's MBC boiler has a capacity of from 5 to 50 MW and consists of two bubbling beds, stacked one on top of the other, like a bunk bed. The bottom "bunk" is the primary combustion bed, and the top bunk acts as the secondary one. Just as with Gotaverken's CFB technology, the main reason for the two-bed system is that more calories of energy can be tapped per kilo of fuel compared with more conventional methods. Another reason is its small, compact size. A 20-MW MBC unit takes up an area no larger than 25 x 25 meters, with a height of only 14 meters. (Scientific American, August 1984, p. S16)

The first two sentences are descriptive, and the basis for the decision (an assessment) to use the two-bed system is provided in the remainder of the paragraph. The basis is in two parts, signalled by the main reason for the two-bed system and Another reason. The first part of the basis is an assessment of comparison (more...compared) with no basis (the factual data of comparison) provided. The second part of the basis has two parts, first in assessment terms (small, compact) with

basis following in terms of the area and height given. The language structure is best seen diagrammatically:



We must thus expect language to have very complex chains of assessments and basis. Some assessments are used as basis, some assessments have no basis provided, and often several elements of basis are included to validate the assessment.

We can now tackle more difficult examples of these principles:

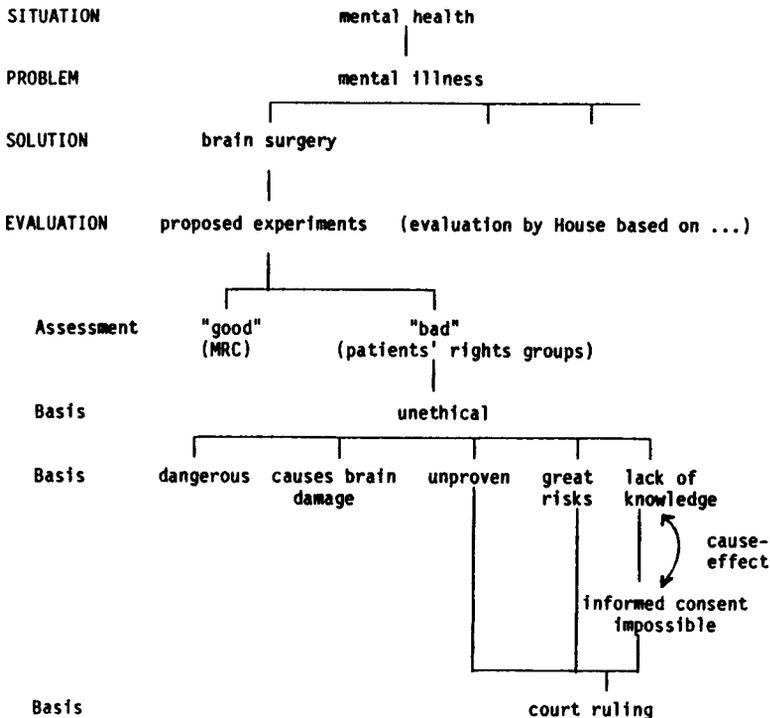
(2) CONTROVERSY OVER MRC PSYCHOSURGERY PROJECT

EXPERIMENTS to assess the value of brain surgery in the treatment of mental illness seem certain to begin soon in British hospitals--despite opposition from patients' rights groups. A £50 000 psychosurgery project has been proposed to the Medical Research Council by the Royal College of Psychiatrists, and the college's detailed grant application is now in the final stages of consideration.

Last Friday (20 February), a petition opposing the experiment, organised by the Patients' Protection Law Committee and signed by 1500 people, was presented to the House of Commons by Joyce Butler, Labour MP for Wood Green. It asked the House to forbid the allocation of public funds to the project on the grounds:

- * That psychosurgery is dangerous and causes irreversible brain damage.
- * That a court in Michigan has ruled that the therapeutic effectiveness of psychosurgery is unproven; that the potential risks are very great; and that lack of knowledge about these questions makes informed consent virtually impossible.
- * That under these circumstances psychosurgery experiments are unethical. (New Scientist, 26 February 1976, p. 427)

The title indicates a difference in assessment between two parties (Controversy) and also the topic of discussion. Assessment and basis are clear in the first paragraph with the aim being to assess the value of a proposed solution to a problem, the experiments being the means of deriving basis on which the assessment can be made. We also learn that the proposal is currently being assessed as part of a grant review. In the second paragraph, the opposition introduced in the first sentence becomes clear, the signatures providing some basis for the view of the patients' rights groups. The petition is an attempted basis; it is presented in the hope of influencing the House to reject the proposal. Basis for the view expressed in the petition is clearly signalled by grounds and is detailed in the following points. The first point has two elements, although it might have been intended as assessment-basis, the brain damage specifying the assessment of dangerous; in any event, both elements are assessments without basis. The second point has three parts with some justification being provided by the source (the court ruling); the last of the three parts has two elements in a cause-effect relationship. The third point is not only basis for the petition but is also an assessment based on the earlier points made, as we see from under these circumstances. A diagram illustrating this extract within the established framework of "Situation-Problem-Solution-Evaluation" (8,9,10) helps us to understand the language structure:



Although there are many other important information structures in language, those involving decision-making, disputation, controversy, and basis for decisions form the heart of a large number of discussions in technical writing and public debate. The approach introduced here is highly suitable for teaching students to read and analyze such documents critically, as well as providing a meaningful understanding of an important part of expository prose. It is also an extremely useful writing exercise: once students become able to perceive and then explain such structures and connections in language, their ability to write clearly about anything is considerably enhanced.

The Signalling of Problems

Problems are important to us in life as they form the starting point for improvement or solutions, and they are no less important to readers and writers for the same reason: they indicate that more needs to be done to appease the concerned, either by convincing them that their fears are groundless or by finding a suitable solution to their concerns. It is thus extremely useful for readers and writers to be able to recognize problems whenever they are signalled. In Example 2, we see examples where the problem is signalled by a single word (dangerous), by word groups (risks...great and lack of knowledge), and even prefixes (ir, un and im).

We can also teach problem identification through classification of types of problem (8). Here are a few examples:

Not enough/too much
 Attack or harm
 Illness or injury
 Not good enough
 Too complex or difficult
 Failure or breakage
 Need to know
 Aim/Requirement/Specification
 Psychological problems
 Inequality/unfairness
 Nasties (pests, germs, enemies, etc.)

Many of these problems are signalled by negation (including prefixes), by typical problem indicators such as too and lack, or by words indicating something undesirable.

The importance of problem identification in life and also in understanding the structure of many texts is illustrated by Example 3.

(3) Restrictive Trade Practices

1. On March 28 the Government published a Green Paper on Restrictive Trade Practices policy. This forms the second stage in an overall review of competition policy (see Update July/August 1978 p. iv).

2. The interdepartmental group responsible for the report found that although the law governing restrictive trade practices had been effective in removing or preventing a wide range of restrictive agreements, there had also been a number of criticisms, particularly that the legislation had in practice proved unduly inflexible.

3. The group also developed the suggestion made in the Green Paper of May 1978 (Cmd. 7198) that so-called uncompetitive or anti-competitive practices--typically devices by one firm for preventing or impeding other firms from entering its market--should be brought under more effective control. The Monopolies and Mergers Commission is designed to remedy that weakness.

4. The Restrictive Trade Practices legislation has proved very effective in relation to goods (it is still too early to assess the effects on services) in removing restrictive agreements the report says. Economic assessments indicate that the legislation has achieved its primary objective by contributing to improved industrial efficiency. The Resale Prices Acts have proved highly effective in ending resale price maintenance, and the evidence suggests that they have made a contribution to efficiency in retailing.

5. There are, however, grounds for criticism, it points out. In particular, the restrictive trade practices legislation is too inflexible, and may deter or even prevent both insignificant agreements and those that are significant but desirable. The legislation should accordingly be made more flexible, and its operation should be simplified. In addition, the means of enforcement should be strengthened.

6. New provisions for controlling a range of anti-competitive practices not covered by the Restrictive Trade Practices legislation should be introduced, the report states. At present such practices--which normally arise through attempts to abuse a dominant position in a particular market--can only be examined in the context of a monopoly reference to the Monopolies and Mergers Commission. (Professional Administration, July/August 1979, p. 33)

We see in this example that positive assessments are happy endings, whereas problem identifications lead to suggestions for remedial action. In this overall review, the solution (the law) is seen to be effective (a positive assessment) in overcoming the initial problem (dealing with restrictive agreements), but it has problems--signalled by number of criticisms and unduly inflexible. Paragraph 3 discusses a proposed solution to a problem, and Paragraph 4 provides several positive assessments. The problems (grounds for criticism) follow in Paragraph 5, with suggested solutions being offered in the last two sentences of that paragraph. Paragraph 6 provides a further suggested solution with its motivation (the problem) coming in the final sentence.

Transitions Between Assessments

The transition between good and bad assessments is indicated (like many other such transitions in information structure (11)) by but, or connectors such as however and nevertheless, or subordinators such as although and while. Instances of this can be seen in Example 3, in which although mediates between good and bad assessments in a sentence of Paragraph 2, and however mediates between the "good" Paragraph 4 and the "bad" Paragraph 5. Rhetorically, the good assessment comes first, as typified by the teacher's comments on a student's speech: "Suitable topic for the audience and interesting contents, but delivery lacked personal drive and you spent too long on trivial detail instead of emphasizing implications and usefulness." We have no doubt all received such good/bad assessments, and we all know that the bad assessment is to follow when we get to the but.

This system applies whether we are communicating assessments within the sentence or between paragraphs or larger parts of text, although the signalling for the latter is usually stronger. Note the good assessments in the first paragraph and then bad assessments (problems) in Example 4, with However mediating between them. Negation as a powerful signal of problem is well illustrated in the second paragraph.

- (4) One of the original researchers, Dr. H.M. Skelly, believes that material with properties at least equal to and very possibly superior to conventional material can be produced by processing swarf without remelting. The process, in addition to conserving metal, is more energy efficient and produces less pollution than the present practice of remelting. It also eliminates the necessity of replacing alloying elements lost during remelting.

However, the recycled swarf does not have the same properties as the parent metal and could not supply the same market. To be economically feasible, new markets would have to be developed. Also, because of the cost of rolling and extrusion equipment, and because industries that produce swarf do not have that equipment, it is necessary to devise ways of processing the swarf with the existing facilities. (GEOS, Fall 1980, p. 17)

Transition is signalled whenever there is a change from one type of information to another (good/bad or bad/good) even if this means several signals of however or the like. It is often best, of course, to keep all the good assessments together and then change to all the bad assessments, but this is not always necessary, as we see in Example 5.

- (5) Meanwhile, under another DoE contract, the General Crude Oil Company is investigating another method of recovering additional oil from underground reservoirs. The company is to test an in-situ combustion process that burns part of the oil in a reservoir to heat the remaining oil. The reduced viscosity enables the combustion gases to drive the previously unrecoverable oil to a producing well.

Although it has been used successfully in the past, in-situ combustion is expensive compared with other methods. It is, however, more efficient than steam driving and can be applied to a wide range of crude oils. Moreover, it supplies its own fuel, requiring only the addition of air and water. (Chartered Mechanical Engineer, December 1978, p. 25)

Mediation between the good assessment (successfully) and the bad one (expensive) is signalled by Although which, as a subordinator, also indicates an element of knownness to the subordinate clause. The change from the bad (expensive) to the good (more efficient) is indicated by however, and the compatibility of the good assessments is signalled by Moreover. This system, although quite apparent with good and bad assessments, applies also to many other changes or non-changes in language and is an important part of many forms of speech and writing. The system is especially important in speech, as the changes in information types must be made very clearly.

Other Related Topics

This has been a brief introduction to an extremely complex and pervasive influence on our thought process and the techniques used by skilled writers and speakers to express those thoughts. Other related topics can be developed from these basic principles including the following:

- (a) assessment by comparison and value judgment;
- (b) theoretical (e.g. mathematical) and practical (e.g. wind tunnel) testing as the basis for assessments;
- (c) the procedure whereby candidates are shortlisted and selected through several stages of assessment;

- (d) the distinction between reported assessments and those of the reporter;
- (e) assessments in titles, headings and summaries; and
- (f) assessments in very short texts such as "Steep Hill" and "Danger".

An understanding of assessment and basis in all its communicative forms and as essential components of any thought process is perhaps the most important subject we could teach our students. Its teaching based on thorough language analysis could do much to bring rhetoric and effective writing to the forefront of educational developments in the decades ahead.

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