Vol. VIII. 3, Fall 1986
Informal Logic

book review

A Critical Thinker Abroad

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Wolfgang Schoberle: *Argumentieren--Bewerten--Manipulieren.* (Heidelberg: J. Gross, 1984)

How do those whose cultural surroundings differ from those of a North American arrive at, and deal with, the need for critical thinking? In a recently published Tubingen dissertation in philology, Wolfgang Schoberle sets out to investigate how the word-and-image combinations of a television advertisement can communicate a message to an audience. His conclusion is that such ads communicate less by reasoned argument or presentation of facts than by arousing certain impressions and appealing to the emotions. That is not a novel idea; it is the route he takes to arrive at this result that will be of interest to an informal logician.

Schoberle discovers that to achieve his goal of understanding how a TV ad communnicates, he must first distinguish argument from other persuasive tactics, and that in order to do this he needs a clear and fairly precise concept of what an argument is. Traditional and symbolic logic afford him little help since he is dealing with argumentation in natural language. So he turns to writers like Toulmin, Rescher, Woods, Walton, Blair, Johnson, Weddle, and Capaldi, with whom readers of this journal are already familiar. There is therefore an aspect of his study which makes it pertinent to informal logic, especially since it leads to a distinction between argument and inference.

Disagreement exists about what critical thinking is, whether it is identical to informal logic, and if not, how different the two may be. In a very broad but legitimate and important sense of the term , stressed in recent articles by both Scriven and Paul, [1] Schoberle's study is a contribution to what we call ''critical thinking''.

In a free society, as contrasted to a totalitarian, we (as well as our students) are targets of numerous appeals to believe this or do that, appeals through the media from different sources and from a wide variety of motives. The student who thinks critically is better able to sift the genuine from the bogus; so one of our challenges, as teachers, is to equip our students with the perspectives, techniques and skills they need to do that. Although Schoberle's book, *Argumentieren--Bewerten--Manipulieren,* has not been written as a teaching instrument, it is the work of a language teacher who has confronted a crucial question: How can I help my students distinguish rational argument from emotional appeal so they can better defend themselves against hucksters in the marketplace? For, as Schoberle says, to make students aware of such emotional appeals

is to partially immunize them to their effects.

This goal relates his work to pioneering informal logic textbooks such as Howard Kahane's *Logic and Contemporary Rhetoric: The Use of Reason in Everyday Life,* as well as Ralph H. Johnson and J. Anthony Blair's *Logical Self-Defense.* Both of these books arm students against political campaign and public policy appeals, and each devotes a chapter to advertising.

A very considerable challenge for those working in critical thinking lies hidden here. Though the distinction of rational argument from emotional persuasion is helpful at one level, it is an ultimately unsatisfactory characterization of the relation between an audience and an advertisement. For one thing, much advertising aimed behond pre-schoolers does receive some crutical scrutiny. You can recognize that an ad makes an emotional appeal and still decide to respond to it positively. In this case you certainly do not have a simple one-to-one emotional response to ad stimulus. In fact, there is no concept of a human life that is purely rational (and utterly lacking in emotion) that makes any more sense today than that of a pillar saint. If you submit as a candidate an octogenarian (longevity proves rationality) former teacher (choosing the same career as ours proves rationality) who buys only nutritional foods, generic drugs, and consumer goods ranked high by *Consumer Reports,* your devil's advocate will object that most consumer goods serve little rational purpose, and that that is doubly so for most drugs. Many an octogenarian would leap at the opportunity of being 26 again, or even 16, with all the absurdities and vulnerability of that age, and not only because it seemingly pushes death much farther away.

If by any measure some emotions are healthy, what is wrong with an appeal to them? Suppose you are confronted with TV images of starving Africans and an appeal for donations to help them. How do you respond? Dismiss the appeal, saying that Africans should solve African problems? Respond to it, calculating that all factors considered, it is the right thing to do? Respond to it, thinking that by sparing a few dollars you may ease the misery of some fellow humans? And what is rational, what emotional in these responses?

What seems to be objectionable in such cases is the attempt to slide something by our conscious awareness. The more devious the deception, and the more harmful the result, the more reprehensible is the act. So subliminal advertising, for instance, would be censured as totally subverting conscious scrutiny. Ads for caffein-free soft drinks, on the other hand, are at most mildly deception in preying on the need of youngsters for acceptance. Ads inducing women to smoke cigarettes (you've come a long way, baby) deserve far more censure, having helped make lung cancer into a leading killer of females in the U.S.

Though Schoberle does not perceive his problem in just these terms, it is evident by the way he attacks it that he is sensitive to them. He notes the relatively impoverished conceptual framework of much research into techniques of persuasion. Particularly widespread is a somewhat crude stimulus-response model that has ads inducing positive attitudes toward products by linking them with basic human desires for acceptance and success. Schoberle wants to get beyond such hammer-tap and knee-jerk reflexes, so he asks how any ad communicates in the sense that TV audiences understand it. His answer reveals how well versed he is in linguistic philosophy of the analytic tradition. Communication by language turns out to be basic, and is best characterized as acting and comprehending according to rules. A listener is rightly judged to understand a speaker's utterance only when he comprehends what the speaker intends by it, and both are able to assume that he does comprehend this.[2]

Schoberle's working concept of an argument differs little if at all from

what we commonly employ in informal logic. For discourse to count as an argument in natural language, a claim must be advanced which either is or could be challenged (an actual challenge is not essential) and reasons or evidence must be advanced in support of the claim. All of the examples in his work are taken from British commercial television (ITV) and so are in English. For instance:

> Splicer is nicer—because Rountree's splicer has four fruity flavors twisted together in one supernew chewbar.[3]

Though Schoberle does not point it out, the above argument has the following unstated conclusion: Therefore you should purchase and consume Rountree's splicer.

Schoberle calls for a conceptual sheme and a framework for analyzing the logic of such statement relations in natural language. This belongs right in the bailiwick of informal logic, but so far we have done very little to explore this area, or to help others with it. With Schoberle, we can consider the following claims, A: The animal off in the distance is black with a bushy tail and white stripe down its back, B: The animal in the distance is a beaver, C: The animal in the distance is a skunk. Schoberle would evidently like to say that B contradicts A, and that A implies C. What prevents him is the discrepancy between what traditional logic teaches about implication and contradiction, and the demands of the material he confronts in natural language. [4].

What Schoberle arrives at, in analyzing statement relations, can be put in four parts. First, such relations obtain between rule-governed actions, not only between propositions. Second, they can be stronger or weaker (especially the relation of implication), but they lack the necessity ascribed to such relations in traditional logic. Third, statements must be related in meaning to be contradictory or implied in natural language, whereas their relations are merely truth functional in traditional logic. Fourth, the context of the statements is of importance in natural language, whereas traditional logic has no interest in the context or use of statements.

It is a shortcoming of logic, and especially of informal logic, not to provide some manner of normative guidance in this important area of statement relations in natural language. Douglas Walton [5] has carried out a stimulating, far-ranging examination of how it affects classical propositional logic to adopt a "relatedness" stipulation for a true value of "p implies q". As Walton sees it, truth functionality is abandoned for implication and disjunction but retained for conjunction, which entails among other things modifying the De Morgan theorems and exportation.

We need to know that such a step can be incorporated into the propositional calculus without affecting consistency or completeness because it helps us keep our bearings logically. But this is only part of our task, and for investigations like Schoberle's the less important part. The continued articulation and elaboration of propositional and predicate calculi in recent years have gone hand in hand with diminishing reasoning ability in the students leaving our schools.[6] So at worst there is no connection between the two, and at best a connection we are failing to find.

Schoberle, for instance, is aware of Walton's results but finds no application for them in his logic of statement relations in natural language. And Walton himself, when he confronts the task of applying this logic to the analysis of arguments in natural language, falls back on the very truth-functional interpretation of conditional statements he found earlier to be dispensable.[7]

The experienced teacher knows that most students have intuitive ideas of implication, contradiction, consistency and inconsistency in natural language. Such ideas can be clarified and refined by working with examples and addressing problems in the class-

room. Experimental work carried out by the present writer and George Teschner in classes at Christopher Newport College generally supports three of Schoberle's above four points.[8]

In this work, the truth-functionality of material implication is rejected, and two statements must be related in meaning for one to imply the other. The strict necessity required of an implication in traditional logic proves too stringent and is eased somewhat. For example, if we encounter, say, A: The oven has been on five minutes, and B: The oven is ready for the pizza, we say that A implies B even though in the case of a blown fuse or power outage A could be true (at least on one interpretation) and B false. Implications can indeed be stronger or weaker, but it seems advisable to reserve "implication" for comparatively strong relations. The problem skirted is that "imply" is sometimes used as an antonym for "state explicityly," and then interpreted so broadly as to encompass facial expressions, tones of voice, and mannerisms. We lose more than we gain if we consider grimaces, voice quavers, and finger crooks logical implications.

Statements are inconsistent when it is not possible for them all to be true together. Confronted with a set of statements they suspect of being inconsistent, students want to know how to go about deciding. This is our response: First, write down separately the statements or clauses that are suspicious; second, compare them to see whether any two are contradictory; third, if not, write out implications of the statements that may lead to inconsistency; fourth, compare the implications with the original statements and with each other for contradictions. To turn up a contradiction is to establish that the original statements are inconsistent and to show why they are.

Most students find problems like the following challenging yet straightforward and solvable:

> Over a period of years in the Vienna hospital where Semmelweis worked, about 9% of the mothers in the First Maternity Ward died of childbed fever whereas only about 2.5% of those in the Second Maternity Ward died of this ailment. In 1846 a commission appointed to study the problem concluded that the higher mortality rate in the First Ward was due to rough handling of the patients by the medical students who trained there. No medical students trained in the Second Ward. Semmelweis pointed out that patients in the Second Ward got comparable rough treatment by the midwives who trained there. And he revealed that when the number of medical students was halved and their patient contact reduced to a bare minimum, the mortality rate in the First Ward rose higher yet.

They will indicate that the commission's finding (medical students caused the higher mortality rate) is contradicted by the results of Semmelweis's reducing the number and patient contact (medical students didn't cause the higher mortality rate).

It is necessary to go to implications when checking for consistency, for if we don't, some fairly obvious inconsistencies will slip through our net. When we do go to implications, however, we soon encounter a thorny difficulty. The following example, admittedly a bit artificial, may illustrate. Suppose in driving from the center of a city we encounter two signs a few miles apart:

A: Right Lane - Buses Only,
B: Buses - Right Lane Only.

Some students analyze this as a case of A implying B, but the question is whether A and B are consistent. By the test "possible to be true together," they are consistent. A says buses use any lane and cars stay out of the right one; B says cars use any lane and buses stay in the right one.

But by the test "draw out implications and check contradictions" the statements are inconsistent.[10] That is seen via the following additional

considerations, C: Buses *can* drive in the left lane, D: Buses *cannot* drive in the left lane, E: Cars *cannot* drive in the right lane, F: Cars *can* drive in the left lane. A implies both C and E, and B implies D and F; C-D and E-F are contradictories.

One suspects that, historically, cruxes like this have served as a powerful motive for logic to become more formal. But the informal logician must wrestle with difficulties like this as they occur in natural language. This is the type of problem where Schoberle's fourth consideration, the context of the statement, comes into play as a criterion. Where the formal logician empties statements of content and looks for a mechanical decision procedure, the informal logician studies the context of the statement for guidance.

The pragmatic rule suggested by the bus and car context is this: suppose you're driving a car on a thoroughfare and you see signs A and B successively, would you be able to continue driving? If you're driving a bus? If, as it seems, the answer to both questions is "yes," we opt for calling the statements consistent.

As for Schoberle's first criterion, that these logical relations obtain between rule-governed actions as well as statements, more evidence and work seem to be needed. Often a more conventional analysis in terms of a clash of wills, or action inconsistent with professed intent, seems to suffice.

Many informal logicians conceive of argument as part of a process of dialectical exchange between persons, but in fact much of our work consists in analyzing and criticizing single arguments relatively isolated from their context. This isolation works to our disadvantage, especially in cases of alleged informal fallacies. We need the context in which the alleged *ad hominem* or *ad misericordiam* arises in order to tell whether we have a fallacy or a valid claim. So we can appreciate the value of an analytical scheme that captures more of the context, like the following one used by Schoberle[11] to distinguish argument from inference:

Argue	*Infer*
[*that P, because Q*]	[*P, so Q*]
Assert A (that P)	Assert A (that P)
X deny B(that P)	X agree B (that P)
X assert A (that P, because Q)	X assert A (so Q)

The difference uncovered here is that in argument an alleged consequence is disputed, whereas in inference a similar alleged consequence is accented.

Schoberle's scheme provides a good basis for a language teacher confronting students who want to know when to use "argument" and when "inference". You can generate or find illustrative examples for it. One reason why Stephen Toulmin's work is so influential among our European colleagues working in speech communication, argumentation. or pragmatics may be that his general pattern of argument analysis in terms of claims, data, and (inference) warrants is rather good for capturing the broader social aspects of this dialectical process.

Logicians have often considered inference the mental act of eliciting information from something given. Wesley Salmon puts it like this:

> Making an inference is a psychological activity; it consists of drawing a conclusion from evidence, of arriving at certain opinions or beliefs on the basis of others. But logic is not psychology: it does not attempt to describe or explain the mental process that occurs when people infer, think, or reason.[12]

On this view, stating an inference would appear to transform it into an argument (by making it the publicly inspectable product of a speech act), whereas on Schoberle's view actually challenging an inference converts it into an argument. So this distinction

seems, even for Schoberle, a perilously thin one. For he agrees that what is essential to an argument is that it be challengeable, not that is be actually challenged. On the other hand, informal logicians such as Scriven speak of stronger and weaker inferences, and so bring inference within the scope of a logic concerned with distinguishing the stronger from the weaker.

It may be helpful to note that the starting point and goal of inference and argument differ. In inference one starts with a body of data considered reliable, then scrutinizes it for implications relative to some (more or less well defined) conclusion which one desires to infer from it. In argument, one starts with a claim one wants to convince others of, then marshals reasons or evidence in support of it, with an eye to what may best convince the others.

One of the sterner tests informal logicians often apply to a distinction is its usefulness in a one-year introductory course in informal logic or critical thinking. Typically, this test is carried out in five stages. First, the instructor makes the distinction clearly and illustrates it with examples. Second, the instructor responds satisfactorily to students' questions about the distinction. Third, students report that they understand the distinction. Fourth, students succeed in making the distinction by working assigned problems and performing on tests. Fifth, instructor and students agree that the distinction is important and belongs in such a course. By this test procedure, it is obvious that the distinction of argument from inference needs more work. Still, Schoberle's book can be recommended for the intrinsic interest of its investigation as well as its illustrating two current important trends: The growing interest in argument and reasoning across disciplinary boundaries, and the growing interest in argument and reasoning in nations with different languages and cultures.

Both these trends were evident in the June 1986 International Conference on Argumentation organized at the University of Amsterdam by Frans van Eemeren and Rob Grootendurst, where upwards of 150 papers were presented by philosophers, rhetoricians, lawyers, and those in speech communications from 25 different nations. The challenges and opportunities of learning from each other's work grow richer every year, and we ourselves will be judged as critical thinkers by our responses to the challenges and what we make of these opportunities. Schoberle's book is a valuable contribution to this task.

Notes

[1] Michael Scriven, "Critical for Survival," *National Forum,* Vol. 65, No. 1 (Winter 1985), pp. 9-12; Richard Paul, "The Critical Thinking Movement," *ibid.,* pp. 2f., 32.

[2] Schoberle, pp. 3-5, 23, *et passim.*

[3] *Ibid.,* p. 110.

[4] *Ibid.,* pp. 34-39.

[5] Douglas Walton: "Philosophical Basis of Relatedness Logic," *Philosophical Studies,* Vol. 36 (1979) pp. 115-136.

[6] Literally dozens of studies document this decline in reasoning ability. THe National Assessment of Educational Progress found in its 1979-80 testing of tens of thousands that "inferential comprehension declined significantly (for 17-year-olds over a ten-year period)... The decline was most drastic when the students were asked to explain and substantiate their responses." Cf. *Reading, Thinking and Writing* (Denver, 1981), p. 23. The National Commission on Excellence in Education reports that "many 17-year-olds do not possess the 'higher order' intellectual skills we

should expect of them. Nearly 40% cannot draw inferences from written material." Cf. *A Nation at Risk* (Washington, 1983), p.9.

[7] Cf. the texbook Walton co-authored with John Woods, *The Logic of the Fallacies* (Toronto, 1982), pp. 40-44.

[8] This work is now summed up for practical application in my textbook. Cf. John Hoaglund: *Critical Thinking* (Newport News, 1984), Chs. 1 and 2.

[9] Adapted from Carl Hempel: *Philosophy of Natural Science* (Englewood Cliffs, 1966), pp. 3-6.

[10] George Teschener pointed this out in a Sept. 1985 discussion.

[11] *Op. cit.*, pp. 116-118.

[12] Wesley Salmon: *Logic*, 3rd ed. (Englewood Cliffs, 1984), p.9.

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announcements

Communication and Cognition held its 20th Anniversary Congress at Ghent, December 6-8, 1987. The theme was applied epistemology. For information contact:

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The Sixth National Conference on Intellectual Skills Development held its conference November 6-7 in Kalamazoo MI. The keynote speaker was Dr. Elaine Maimon (Brown University) and other featured speakers were: Vincent Ryan Ruggiero (SUNY at Delhi); Charles Wales (West Virginia); Curtis Miles (Piedmont Technical College) and James Eison (Southeast Missouri State).

The Philosophy Department of Xavier University will sponsor a speaker series entitled "Teaching Critical Thinking: Three Divergent Approaches" during the 1987-88 fall and spring semesters. The purpose of the series is to stimulate discussion about the failure of secondary and higher education to produce thoughtful, analytical minds, and to present three very different approaches to a solution by leaders in the CT movement. The following lineup of speakers is planned: John McPeck (University of Western Ontario) Dec. 2, 1987;