BD 136 324

AUTHOR   Zarefsky, David
TITLE   Argument as Hypothesis-Testing.
PUB DATE   76
NOTE   18p.; Paper presented at the Ann
                Speech Communication Association
                Francisco, California, December

EDRS PRICE   MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS   *Debate; Higher Education; *Hypo
                Logical Thinking; *Persuasive Di
                Theories

ABSTRACT
                The argumentative perspective en;
function in a manner analagous to science or ana.
yielding reliable knowledge about nonempirical t
methods cannot address. In short, argumentation :
hypothesis-testing. Forensics should offer labor;
developing this perspective of communication; im
theory, which concern the wording of the proposi:
presumption, the suspension of disbelief, case d(
counterplans, and the nature of decision making,
into account. Because argumentation is a generat:
opinions differ as to its purpose and product. T]
rhetorical paradigm must finally depend on an as:
functionalism. (KS)

ARGUMENT AS HYPOTHESIS-TESTING

David Zarefsky

Northwestern University

THE HYPOTHESIS-TESTING PARADIGM

In the latter part of the 19th century, the pragmatist philosopher
Charles Sanders Peirce described four ways of answering the question, "How
do we know what we know?"[1] After discussing tenacity, authority, and the
a priori method as epistemological instruments, Peirce indicated his preference
for verification, the method of science. The value of this method, he wrote,
was that perception would be unaffected by quirks of the perceiver; science
was a method "by which our beliefs may be caused by nothing human, but by
some external permanency--by something upon which our thinking has no effect."[2]
Since the scientific method is impersonal, it always can be replicated, and
the process by which results are obtained can be specified. As a consequence,
scientific knowledge is reliable knowledge.

Certainly Peirce was not alone in asserting the primacy of science as
a means of gaining knowledge. Within the last few centuries, empiricism has
come to share a preferred position with logical deduction among epistemological
methods. Both verification and deduction seem to offer the promise of certainty,
to yield knowledge which can be labeled truth. And the difference between what
could be called knowledge and that which could be identified only as belief
goes back to Plato's time.[3]

But if the only way to obtain knowledge is through science, large domains
of human interaction must operate without benefit of knowledge: all things
which cannot be observed, all value judgments, all predictions about the future,
all suggestions for action, and so forth. Without being able to know anything
with respect to these topics, we have no grounds for justifying one position
over another. We either must be indifferent to the choice among values or
judgments, or else believe that the choice must be made on the basis of intensity
of commitment to a position, or some other non-rational grounds.[4] Drawing the

same conclusion in the form of a rhetorical question, Perelman asks whether

we must conclude "that reason is entirely incompetent in those areas which

elude calculation and that, where neither experiment nor logical deduction

is in a position to furnish the solution to a problem, we can but abandon

ourselves to irrational forces, instincts, suggestion, or even violence."[5]

The alternative to accepting this dreary state of affairs is to reformu-

late the notions of truth and reliable knowledge. In such a reformulation,

science is valued not for what it is but for what it does. According to

this view, science is valuable not primarily because it is empirical but

because it yields knowledge which is reliable and consistent. The task then

becomes one of inquiring whether a similar epistemological instrument exists

in the non-empirical realm.

A growing number of scholars have suggested that rhetoric functions in

just such a way. Rejecting the premise that rhetoric is a means of adornment

for truths previously discovered, these writers suggest that rhetoric is a

means of creating truth. As Carroll Arnold explains, "Manipulating symbolic

devices for the purpose of gaining someone else's assent is essential to the

very process of coming to know. . . . Rhetorical activity thus becomes not

persuasion alone but an activity of ideational discovery."[6] A notion such as

this may seem hard to reconcile with the traditional view that rhetoric,

focused on appearances and probabilities, is antithetical to the discovery of

certainty and truth. But rhetorical truth differs in two major respects from

scientific truth. First, it exists within a particular context. It is bound

by time and hence, as Scott says, "it can be the result of a process of

interaction at a given moment."[7] By contrast, scientific truth is thought to

be tenseless, knowledge which exists for all time. Second, rhetorical truth

is obtained by consensual validation--it is the assent of an audience which gives to a proposition the status of knowledge. If _agreement_ is the criterion for rhetorical knowledge, it follows that rhetoric yields not objective knowledge but "social knowledge"--that is, propositions which are accepted as true by a particular community or society.[8]

What has been suggested so far is that rhetoric is the counterpart of science. Science generates knowledge about matters of fact whereas rhetoric generates knowledge about the uncertain and contingent. Yet the matter is not so simple. To claim that science and rhetoric are distinct (even if analogous) is to assert a difference between fact, which can be observed, and value, which cannot. Increasingly, however, this distinction is being called into question. In his seminal work on revolutions in scientific thought, Thomas Kuhn has observed that scientific belief includes "an arbitrary element compounded of personal and historical accident."[9] As a result, facts are not immutable and independent of the perceiver. Instead, one's context or worldview affects what one observes and declares to be fact. As Kuhn puts it, "Scientists see new and different things when looking with familiar instruments in places they have looked before."[10] What gives perception the status of "fact," then, is that a very wide and durable consensus exists as to its truth. The difference between fact and value is one of degree rather than kind; statements of fact, like those of value, are proved by consensual validation.

What follows from Kuhn's analysis is that science and rhetoric are not distinct modes of knowledge. Instead, scientific knowledge is of a special type because--except in times of scientific revolution--it commands a _broad_ and _stable_ consensus of adherence. But it, too, depends upon consensus, and rhetoric, in Richard Rieke's phrase, "is inextricably involved in the generation of knowledge; not merely _a_ way of knowing, but involved in all ways of knowing."[11]

Particularly if rhetoric is seen as ubiquitous, but even if it is not, the notion that rhetoric serves as a way of knowing may seem somewhat discomforting. Throughout history, rhetoric has been viewed with suspicion, often identified with sophistry and deciption. If whatever an audience may be induced to believe is granted the status of knowledge, the meaning of "to know" would seem debased, to say the least. Booth illustrates the possibilities: "Charles Manson will be confirmed by the assent of his witches, Hitler by his SS troops, every Christian sect by its hundreds or millions of adherents, and indeed every political and religious program by its ability to present witnesses." Despairing of such possibilities, Booth asks, "Am I not now forced to accept any piece of silliness that any fanatic wants to advance, provided only that he can get somebody to assent to it and that it cannot be clearly refuted with particular disproofs?"[12]

To answer Booth's question in the negative, one must demonstrate that a counterpart exists in rhetoric to the rigor of scientific procedure: the assumption of the null hypothesis, the revelation of one's method, the advance determination of needed levels of significance, and so on. Such a counterpart is not always found in rhetorical transactions--people may be persuaded to accept the unreasonable--but it is present when rhetoric is approached from the perspective of argumentation. The National Developmental Conference on Forensics defined the argumentative perspective as one which focuses on the processes by which people give reasons to justify their attitudes, beliefs, values, and actions.[13] Rieke elaborates on this definition by referring to "instances in communication when people give reasons to justify their claims, and others interact critically with them to test those reasons in relation to competing claims."[14] In such a situation, one knows (or imagines) that an interlocutor will be present to probe the weaknesses in his claims and to present counter-

claims; one's interlocutor, moreover, is assumed to be at least as intelligent
and skilled as oneself. This knowledge serves as a disincentive to the presenta-
tion of sophistical arguments or specious appeals, and as a strong incentive
to the presentation of the most tenable claims one can develop--claims which
are so strong that they will warrant the adherence of even such a talented
interlocutor.

Moreover, the audience of argumentation withholds its assent from a
proposition unless and until it survives the test served up by the inter-
locutor. Another way in which to make this statement is to say that a
presumption is stipulated to lie against the proposition in dispute, and the
overturning of that presumption is a necessary condition for the affirmation
of the proposition. It is this stipulation of the presumption which introduces
rigor into the argumentative exchange, in order to avoid the acceptance of a
false claim.[15] When a rhetorical transaction is characterized by the presence
of this rigor, one may feel comfortable in giving to its outcome the same
status of knowledge that he would grant to the results of scientific investiga-
tion.

A recapitulation of the ideas developed to this point now seems in
order. The argumentative perspective enables rhetoric to function in a manner
analogous to science or analytic philosophy, yielding reliable knowledge about
topics which these methods cannot address. (If Kuhn's point of view is correct,
rhetoric is at the base of both scientific and non-scientific knowledge.)
To extend the analogy, the argumentative enounter is the counterpart of the
scientific procedure or the logical deduction. The proposition being argued
is the counterpart of the scientist's or philosopher's hypothesis, and placing
presumption against the proposition is the means of providing for a rigorous
test of the proposition. Finally, the judge of argument is the counterpart of

the scientist; his goal is to test the hypothesis to determine whether it is probably true. By "probably true" is not meant that the proposition's truth-value is eternal and unchanging, but that, in the situation at hand, the judge has good reason to assent to the proposition.[16]

Two corollaries of this position should be noted briefly. First, argumentation is seen as an essential human activity; it is not a set of strategies or techniques for the presentation of truth which has been obtained by other means. Indeed, Johnstone has argued that what makes us human is precisely this exercise of judgment in generating and accounting for conclusions, and inviting others to do so. Only such an activity introduces "opacity" into experience, transcending the realm of immediacy.[17] Second, the participants in argument always are one step removed from action. They are, in Ehninger's phrase, imprisoned in the world of words.[18] The process of argumentation leads to belief but not necessarily to action. Commitment to the proposition does not adopt it; the judge merely declares that he believes his statement to be probably true. Of course, action sometimes is incipient in belief. Even so, the choice of specific action and the mechanics of implementation lie beyond the process of argument. A commitment to action, in other words, includes both argumentative and non-argumentative components.

IMPLICATIONS FOR CURRENT FORENSIC PRACTICE

Forensics should offer laboratory experience in developing the argumentative perspective on communication. When the hypothesis-testing paradigm is applied to current forensic practice, several theoretical implications result. Six of these implications will be considered briefly.

(1) The wording of the proposition receives increased importance; the specifics of the plan to implement the resolution are of less importance. For the terms of this paradigm, nothing is being adopted, so the mechanics of the plan are of relatively trivial significance. The function of a plan is to

illustrate the principles embodied in the proposition, thereby focusing the argument upon those principles. But all debate about the plan itself is conditional, or hypothetical, in nature. Consequently, it may not always be necessary to present a plan--the principles of the proposition may be self-evident. If a plan is presented, it need not have the specificity of a piece of legislation, since it is not being submitted for adoption. Should some difficulty be discovered in one of the plan's peripheral features, the plan could be amended, so long as the amended version still embodied the principles implicit in the proposition.

By contrast, the wording of the proposition is of central importance, since the proposition is the hypothesis being put to the test. Any different statement of a proposition assumes the character of an alternate hypothesis. In order for proposition X to withstand the challenge that alternate hypothesis Y could account equally well for the phenomena being discussed, a specific defense must be made for proposition X--not just for "a change" or even for a direction in which change should proceed. Hence the genre of "justification" arguments is of special significance. For example, the proposition that the Federal government should establish, finance, and administer programs to control air and water pollution fails if reason cannot be given for each of the three indicated actions, for action by the Federal government, and for controls over both air and water pollution. To do less might call for an alternate proposition, but not the specific one at hand.[19] Or, as Trapp summarizes, the key question for the judge is, "Does the affirmative case provide sufficient reason to affirm or justify all of the terms of the resolution?"[20]

(2) Presumption is placed against the specific proposition being debated. This procedure, as described above, assures a rigorous test of the proposition. It differs significantly from the traditional approach, in which presumption is thought to lie naturally with the present system because of the risks inherent

in change. The hypothesis-tester regards presumption as stipulated rather than natural. Moreover, he recognizes that there are risks in both change and stability, and that neither change nor stability is a complete characterization of the normal state of affairs.

One might ask why rigor is served by placing presumption always _against_ the proposition; indeed, it might seem that to do so is to fail to test rigorously the arguments advanced by the negative. But the negative is not proposing a thesis for adherence; its aim is only to negate. Rejecting the proposition does not preclude taking any other position. An alternate hypothesis may be proposed for testing, the original hypothesis may be refined and then re-examined, further study may be undertaken, and so forth. By contrast, to affirm the proposition is to make a personal commitment that it is probably true. Since rejection involves fewer risks than does acceptance, it is appropriate to locate presumption against the resolution. Such reasoning is analogous to that by which the scientist presumes the null hypothesis. Mueller, Schuessler, and Costner explain that "false rejection of the null hypothesis will lead to action that will not in itself provide a corrective for a wrong decision."[21]

It might seem that the hypothesis-tester's placement of presumption involves a distinction without a difference, since it still rests initially with the negative. But the difference is that the negative cannot lose the presumption, except by concession or by advocacy of the proposition. As a consequence, hassles over the differences between major and minor repairs, or between repairs and counterplans, are avoided. So long as the negative opposes the proposition, it retains presumption.

(3) "Fiat power" is but a figure of speech. In recent years, there has been much discussion of the role of "fiat power" in argument, especially as a device to overcome attitudinal barriers to the solution of a problem.[22]

According to one point of view, debate involves the "willing suspension of disbelief" so that, for the duration, the judge is regarded as if he were a decision-maker with the power to implement a decision. Much argument may ensue, therefore, about advantages deriving from a _guarantee_ of action, from the presence of a clear mandate, and so on. In response it has been argued that such advantages are bogus because they derive from the existence of the fiat power rather than from the substantive merits of the proposition.

According to the hypotheses-testing paradigm, all such dispute is rendered moot. "Fiat power" is not treated as if it were real, because argument remains in the world of words and nothing is adopted. To speak of "fiat power" is only to talk, in a shorthand way, about what might be imagined to be the consequences if action contemplated by the proposition were taken. Assuming, _for the purposes of argument_, that actions were taken is a convenient way to consider their effects and implications. But it is a far different assumption to imagine that actions _actually_ were taken.

(4) Case development emphasizes the generic defense of the proposition, and inherency becomes especially important. It would be a weak affirmative case which reported the facts (such as the number of deaths from highway accidents), _assumed_ that the facts were coercive of action, and conveniently offered the proposition as an appropriate solution. The negative might respond to such a case with a long list of alternative possibilities for action which might be equally good. Since these options are analogous to alternate hypotheses, they would defeat the proposition unless the affirmative could undermine each of them individually--a difficult task, especially when time is limited. Instead, the affirmative should take as its point of departure not "the facts" but the proof requirements of the proposition. The principles implicit in the proposition would be defended; this defense then could envelop a large array of non-propositional alternatives. On the proposition calling

for a guaranteed annual income, for example, discretionary programs might be indicted on the grounds that they are necessarily arbitrary in their administration. Any discretionary program the negative might introduce (unless it could be shown specifically to be an exception) would fall prey to this indictment, whereas any non-discretionary alternative, by definition, would incorporate the guarantee called for in the proposition. The generic defense of the proposition, which may be strategically the wisest choice in any case, becomes a necessity within the hypothesis-testing paradigm.

Similarly, inherency becomes a crucial consideration. Some answer must be offered to the causal question, "Absent the action envisioned by the proposition, why would presumably good people tolerate evil?" It will not do to report "the facts" and then to infer, without analysis, the existence of some causal force which would be removed if the action stated in the proposition were taken. The reason is that there are other, equally plausible, inferences which can be made from the same data. For example, policy-makers simply may not yet perceive a situation as a problem. Or they may have determined that the problem cannot be solved. Or they may have concluded that, on balance, solving the problem would bring about far worse consequences than the evils which would be removed. Each of these inferences, because it offers a different interpretation of reality, stands as an alternate hypothesis which must be defeated in order to provide a unique defense of the proposition. To defeat the alternatives, the affirmative will need to answer the causal question which is at the base of the analysis of inherency.[23]

(5) Counterplans are by nature conditional. Just as the affirmation of the proposition does not lead automatically to the adoption of a plan, so the rejection of the proposition does not constitute endorsement of some alternative. The function of the counterplan is to argue by example that the

12

specific proposition under consideration has not been justified. How can prop-
position X be said to be warranted if alternative proposition Y accounts for
the data equally well? The counterplan, then, is merely the justification
argument in a different form. And, like the justification argument, it always
contains an implicit conditional: if it is necessary to take some action to
deal with a problem, then the action contemplated by the proposition has not
been shown to be warranted. As a consequence, to present a counterplan is
not necessarily to concede that there is a need for a change. Nor--as explained
above--does the presentation of a counterplan constitute a surrender of pre-
sumption (unless, of course, the counterplan affirms the proposition). And,
since arguments about both the plan and the counterplan are conditional, the
counterplan need not be presented with the specificity appropriate to legislation.
All that is necessary is to claim that action based on principles incompatible
with the principles of the proposition would be an equally appropriate way to
deal with a given problem.

(6) Finally, the hypothesis-testing model directs that the judge make a
yes-or-no decision, rather than a this-versus-that decision. His choice is
not similar to the one he faces when he votes for candidates for public office
and must answer the question, "Which shall I choose, X or Y?" Rather, his
choice is similar to the one he faces when deciding whether to support a tax
increase in his school district: "Shall I choose X, yes or no?" Only one
hypothesis is being tested--the hypothesis which takes the form of the proposi-
tion at hand. To affirm the proposition is to commit oneself to its probable
truth. To reject the proposition, however, is not necessarily to make any
commitments with respect to alternatives. The decision to reject X need not
imply the affirmation of Y. Instead, the choice is between the central
principles of the proposition and the universe of non-propositional alternatives.

13

Other examples could be cited, but these six should illustrate the implications for current forensic practice of a point of view which regards argumentation as hypothesis-testing for the purpose of determining probable truth.

THE CHOICE AMONG PARADIGMS

Until the last ten or fifteen years, argumentation theory was relatively monolithic. The underlying assumption was that reasonable citizens use argument to decide whether or not to change--whether to reaffirm a commitment to the present order or to proclaim a new one. So widespread was the agreement on this basic paradigm that it was not recognized as only one among a number of possible paradigms. As theoretical controversies developed--over the meaning of presumption and burden of proof, the concept of inherency, case forms and principles of case construction, and so on--these controversies were seen as separate and independent issues. Often, discussion did not advance beyond initial statements and subsequent repetitions of thesis and antithesis, with further development stifled by the fact that the disputants began with fundamentally different assumptions.

Now forensics is in a period much like that which Kuhn described as paradigm shift.[24] The old rules seem blurred, fundamental assumptions are re-examined, and competing paradigms are vying for consensus within the field. How to choose among these paradigms is a crucial question, since, as has been demonstrated here, one's choice of a paradigm may dictate his opinion about many theoretical disputes. Yet the choice among paradigms is a particularly vexing one because each resists attack except on its own terms. Nothing is gained, for example, by attacking the policy-comparison paradigm for its uselessness in facilitating hypothesis testing. Advocates of the policy-compariso

14

paradigm would reply, and rightly so, that the attack involved the fallacy

of irrelevant function--attacking a paradigm for failing to achieve what

it was not designed to achieve in the first place.

Arguments about paradigms belong to that class of philosophical

arguments for which, as Johnstone finds, only ad hominem argumentation is a

suitable response.[25]   That is to say, one defeats an argument for a particular

paradigm only by showing that it undermines its own purpose. That task may

be very difficult, however, since each paradigm seems internally consistent.

Furthermore, many of the problems which might be noted disappear when one

realizes that the analogies on which the paradigm is built--argument as science,

the judge as legislator, debate as incrementalism, and so on--are figurative

rather than literal.

In the absence of appropriate ad hominem arguments, other bases for

choice among paradigms suggest themselves. One could argue for a particular

paradigm on the basis of its practical consequences. This approach may be

fruitful. But it also may be dangerously misleading, if arguments are based

upon the misuse of a paradigm rather than upon its intrinsic characteristics.

And it may put the cart before the horse, defending one paradigm or another

on the basis of its suitability to a particular contest format, forgetting that

the contest format is a contrivance to respond to theoretical and pedagogical

needs rather than the other way around.

One might argue for a paradigm on the basis of its breadth of utility--

noting, for instance, that the hypothesis-testing paradigm applies to all

argumentation rather than only to controversies of policy. But such a claim

presumes that types of argumentative encounters are more alike than different,

a claim which is possible but which has not been much investigated. In the

last analysis, we may be forced, paradoxically, to choose a paradigm for

reason-giving on the basis of intuition.

15

Precisely because argumentation is a generative, or architectonic, process,
users differ as to its purpose and product. Hence there exist various paradigms
of the process of argument. Since stipulation of a paradigm involves choices
and affects one's position in many other controversies, we should be aware of
the profound significance lurking behind a seeming tautology when, in an early
essay, Ehninger observed that "debate is what we say it is."[26]

16

Mr. Zarefsky is Assistant Professor and Chairman of the Department of Communication Studies, Northwestern University.

1
Charles Sanders Peirce, "The Fixation of Belief," Popular Science Monthly, 12 (1877), 1-15.

2
Peirce, p. 11.

3 Plato, Gorgias 454.

4 These two options are considered at length in Wayne C. Booth, Modern Dogma and the Rhetoric of Assent (Notre Dame, Ind.: Univ. of Notre Dame Press, 1974), esp. pp. 12-24. The first option is labeled by Booth as "scientism"; the second, as "irrationalism." See also the report of the National Developmental Project on Rhetoric, The Prospect of Rhetoric, eds. Lloyd F. Bitzer and Edwin Black (Englewood Cliffs, N.J.: Prentice-Hall, 1971), p. 239.

5 Chaim Perelman and L. Olbrechts-Tyteca, The New Rhetoric, trans. John Wilkinson and Purcell Weaver (Notre Dame, Ind.: Univ. of Notre Dame Press, 1969), p. 3.

6 Carroll C. Arnold, "Inventio and Pronuntiatio in a New Rhetoric," paper presented at the Central States Speech Association convention, Chicago, Illinois, April 6, 1972, p. 4. Similar statements can be found in Robert L. Scott, "On Viewing Rhetoric as Epistemic," Central States Speech Journal, 18 (1967), 9-17; Perelman and Olbrechts-Tyteca, p. 32; Booth, p. 106; Susanne K. Langer, Philosophy in a New Key (New York: Mentor, 1951), esp. pp. 15-33; Stephen Toulmin, The Uses of Argument (Cambridge: Cambridge Univ. Press, 1958), p. 248; Douglas Ehninger, "A Synoptic View of Systems of Western Rhetoric," Quarterly Journal of Speech, 61 (1975), 452-453.

7 Scott, p. 13.

8 On the nature of "social knowledge," see Thomas B. Farrell, "Knowledge, Consensus, and Rhetorical Theory," Quarterly Journal of Speech, 62 (1976), 1-14.

9 Thomas S. Kuhn, The Structure of Scientific Revolutions, 2d ed. (Chicago: Univ. of Chicago Press, 1970), p. 4.

10 Kuhn, p. 111.

11 Richard D. Rieke, "Rhetorical Perspectives in Modern Epistemology," paper presented at the Speech Communication Association convention, Chicago, Illinois, December 28, 1974, p. 1.

12 Booth, p. 106.

13 Forensics as Communication: The Argumentative Perspective, ed. James H. McBath (Skokie, Ill.: National Textbook Comapny, 1975), p. 11.

14 Rieke, p. 2. Rieke's model for such an instance is "communication among philosophers." There is a strong similarity between this model and Perelman's view of the "universal audience." See Perelman and Olbrechts-Tyteca, pp. 31-35.

[15] A fuller explanation of this idea may be found in David Zarefsky, "A Reformulation of the Concept of Presumption," paper presented at the Central States Speech Association convention, Chicago, Illinois, April 6, 1972. On the function of presumption in inducing rigor, see also Robert A. Trapp, "Non-Policy Debate in Search of an Audience," paper presented at the Western Speech Communication Association convention, San Francisco, California, November 24, 1976, p. 7.

[16] "Good reasons" are those which are psychologically compelling in that they render further inquiry unnecessary and superfluous. See Karl R. Wallace, "The Substance of Rhetoric: Good Reasons," Quarterly Journal of Speech, 49 (1963), 239-249.

[17] Henry W. Johnstone, Jr., "Some Reflections on Argumentation," Philosophy, Rhetoric, and Argumentation, eds. Maurice Natanson and Henry W. Johnstone, Jr. (University Park: Penna. State Univ. Press, 1965), p. 3.

[18] Cf. Douglas Ehninger, "Argument as Method: Its Nature, Its Limitations, and Its Uses," Speech Monographs, 37 (1970), 107.

[19] This example is developed in Zarefsky, "A Reformulation of the Concept of Presumption," p. 9.

[20] Trapp, pp. 9-10.

[21] John H. Mueller, Karl F. Schuessler, and Herbert L. Costner, Statistical Reasoning in Sociology, 2d ed. (Boston: Houghton-Mifflin, 1970) p. 400; cited in Bill Henderson, "Debate as a Paradigm for Demonstrating Truth through Hypothesis Testing," paper presented at the Speech Communication Association convention, Chicago, Illinois, December 29, 1974, p. 5.

[22] In this regard, see especially David A. Ling and Robert V. Seltzer, "The Role of Attitudinal Inherency in Contemporary Debate," Journal of the American Forensic Association, 7 (1971), 278-283; and J. Robert Cox, "Attitudinal Inherency: Implications for Policy Debate," Southern Speech Communication Journal, 40 (1975), 158-168.

[23] This sort of inherency analysis is described more fully in David Zarefsky, "The Role of Causal Argument in Policy Controversies," Journal of the American Forensic Association, in press.

[24] See esp. Kuhn, pp. 84-86.

[25] Henry W. Johnstone, Jr., Philosophy and Argument (University Park: Penna. State Univ. Press, 1959), pp. 73-92. Johnstone does not use ad homenem to refer to personal attack.

[26] Douglas Ehninger, "Debating as Critical Deliberation," Southern Speech Journal, 24 (1958), 30.

18