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Jonathan Adler (Brooklyn, CUNY) *"Self-Criticism with Continued Commitment."* The paper defends a seemingly non-controversial claim: Self-criticism of a position one holds is possible. My first task is to argue that there are a number of over-looked difficulties with self-criticism of a belief one holds. I then take up an argument that seeks to show that self-criticism of one's belief (without rejecting that belief) either amounts to a pallid fallibilism or is incoherent. I challenge this argument by showing that what is true in the argument depends upon problems in the formulation and expression of self-criticism with continued commitment (SCCC), but not with any real epistemic incoherence. Given that SCCC is coherent, it is next wondered why SCCC is rare, especially in our current atmosphere with its heightened consciousness of opposing views. A clue lies in the rejected argument: SCCC is problematic to express. The reason is that it is a feature of our assertions that we implicitly claim that (a) we are wholly responsible for them and (b) our holding them is solely epistemically motivated. SCCC violates these assumptions. I then argue that these assumptions hold for the expression of SCCC, but we can easily recognize that they do not fully govern our beliefs and commitments. Even though strictly false, they generate powerful social expectations whose aim is to facilitate healthy dialogue and criticism. They contribute to the search for truth under normal conditions. But in our current situation of shrill, abnormal public discourse, they can work against us. Alasdair MacIntyre holds that the explanation for the shrillness of our moral debates lies in our reluctant recognition that there is no basis for our moral positions. MacIntyre's explanation just assumes, wrongly, I argue, on the basis of our above reasoning, that our justificatory standards are proper. In the current situation, the expression of SCCC should be encouraged while recognizing that it is all the more difficult. As a suggestion for future work, I observe the crucial role of SCCC in any account of rational change of belief.

Derek Allen (Toronto) *"Assessing Arguments."* It is agreed that a logically good argument has a sound inference. And it is standardly held that an argument's inference is sound if and only if the argument's premise(s) and conclusion are soundly connected. I shall challenge this view of inferential soundness on the ground that there are arguments whose premise(s) and conclusion are not soundly connected but whose inferences are nevertheless impeccable. I shall then propose an alternative criterion of inferential soundness and evaluate it in the light of recent work in the theory of argument criticism.

Maryann Ayim (Western Ontario) *"Supportive Criticism."* In this paper, the author develops the view that the standard negatively critical approach to argument analysis gives the wrong emphasis, and that a positive supportive approach is more conducive to the achievement of both better understanding and better arguments. Analogies are drawn with ordinary discourse, and comparisons of gender trends evident in such language are made; the author uses these empirical findings in an attempt to illustrate and support her view that more valuable logical lessons are to be gleaned from the traditional speech patterns of females than males.

Sharon Bailin (Manitoba) *"Criticism as Creative."* This paper will argue that criticism

*These abstracts were submitted by the authors, and were originally printed in the conference programme booklet. They are here presented in alphabetical order by the authors' last names.

has a creative dimension. It will demonstrate how this creative dimension is manifested in Informal Logic and will explore the implications for pedagogy.

The paper will begin with an exploration of the nature of creativity and how it relates to criticism. It will be argued that creativity involves the generation of results which are not only new but also of value and that such generation is constrained by critical standards. Furthermore, criticism necessarily involves the generation of ideas and possibilities. Thus generation and criticism are closely tied together.

The above analysis will then be applied to each of the areas which is the concern of Informal Logic: the interpretation, the evaluation, and the construction of arguments. First it will be shown that interpretation has a creative dimension. Providing a faithful rendering of an argument involves filling in unstated premises and reconstructing the structure of the argument. This means generating possible meanings, an undertaking which clearly requires the imagination. Yet in order to be a faithful interpretation, the possibilities generated must be constrained by various criteria and principles (eg. principle of charity). Thus the critical and the creative dimensions are both evident and closely intertwined.

A creative aspect is also evident in the evaluation of arguments. Uncovering assumptions, finding counterexamples and devising alternative explanations are all aspects of argument evaluation which require invention constrained by critical criteria.

Moreover the critical assessment of debates regarding controversial issues in real situations generally involves comparing conflicting arguments and coming up with one's own view which synthesizes the soundest aspects of the various arguments under consideration. It involves constructing arguments and this is clearly a creative process. This analysis suggests the need to emphasize more strongly the creative dimensions to criticism in the teaching of Informal Logic. What is necessary, in addition to the skills of argument analysis, is an understanding of the critical and creative nature of the development and assessment of knowledge.

E.M. Barth (Groningen) "*In the Service of Human Society: Formal, Informal, or Anti-logical?*" So far as the formal-informal divide in logic goes, I say simply: there ought to be formal logic and there ought to be informal logic, and both ought to be attuned to human affairs. I do not see any incompatability between the two. However, I have the impression that in certain argumentation circles, especially in speech communication, there is not a mere anti-formal attitude, but an anti-logic attitude. The latter is much more serious and should not exist unattended.

The dialogically oriented philosophy of the Dutch philosopher and logician E.W. Beth (1908-1964) is one of the basic sources of argumentation theory in Europe (along with the work of Chaim Perelman, Louise Olbrechts-Tyteca, Arne Naess and Paul Lorenzen). By describing Beth's outlook on logic and the needs of humanity, I hope to influence your ideas about the less threatening formal/informal divide as well.

Jonathan Berg (Haifa) "*Inference and Explanation.*" Inference and explanation can best be distinguished on the basis of the distinction between acceptance and understanding. The two are confused not only because the language of each so resembles that of the other, but also because they so often (and so naturally) interact (even to the point of coinciding). An examination of the many different ways in which they interact helps to clarify the distinction between them.

Georg Brutian (Yerevan) "*Logic and Argumentation.*" It will be shown in the paper that the role of logic in argumentation is very important. There are different kinds of logic, and the problem—what kind of logic we use in the concrete case of argumentation—depends on the character of the field of argumentaiton. We differentiate three kinds of logic—formalized, formal and contental. The informal logic as well as dialectical logic are kinds of contental logic. They play a specific role in argumentation.

Jerrold R. Coombs (British Columbia) "*Informal Logic in Teaching and Learning.*" This paper analyzes the role that competence in Informal Logic, broadly conceived, plays in teaching responsibly, particularly when the teaching is directed toward developing moral understanding and competence in moral deliberation. The paper has three parts. Part one sketches the requirements of responsible teaching giving special attention to the re-

quirements for teaching morality. Part two considers the nature of the reasoning practices involved in teaching morality in a responsible manner. Part three discusses the ways in which we need to refine and extend our understanding of the practice of good reasoning in the pedagogical context if we are to develop educational programs better suited to the task of helping teachers to acquire the intellectual and dispositional resources necessary for responsible teaching.

Maurice A. Finocchiaro (Nevada-Las Vegas) *"The Positive versus the Negative Evaluation of Arguments."* I should like to explore the question of whether there are significant differences between the positive and the negative evaluation of arguments, and if so, what is the nature and origin of these differences, and what are their implications (for theory, practice, and teaching). A central part of the paper would be a summary, analysis, and evaluation of Gerald Massey's thesis of asymmetry (in, for example, "Are there Good Arguments that Bad Arguments Are Bad?" and "The Fallacy Behind Fallacies"): here I should like to elaborate my hunch that there is something right about this thesis, and that its implications are favorable to the enterprise of informal logic, rather than unfavorable as he himself and many informal logicians think. Another part of the investigation would be to explore how Massey's asymmetry relates to the one I elaborated in my article on "Fallacies and the Evaluation of Reasoning".

Alec Fisher (East Anglia) *"Argument Analysis and Socratic Questioning."* Argument analysis is at the heart of informal logic. Whatever else the informal logician teaches, he or she characteristically studies already-presented arguments and analyses and critiques them. Socractic questioning is at the heart of critical thinking. What ever else the critical thinking teacher does, he or she characteristically emphasizes the skills of Socratic questioning. But what counts as Socratic questioning, as distinct from any other kind of questioning?

Many critical thinkers appear to regard argument analysis as a mere "micro-skill", but in fact it determines which questions to ask in the course of Socratic questioning. Socratic questioning is not just any questioning. Its questions are, "What is your main point/conclusion/recommendation, etc.?". "What is your reasoning/argument/evidence etc.?", "Are you assuming, presupposing, implying P etc.?", "What do you mean by that term, expression, claim etc.?", "Suppose P were true; would this be irrelevant to, strengthen, or weaken your argument etc.?". And these are the questions of argument analysis, so informal logic is at the heart of critical thinking.

James B. Freeman (Hunter) *"The Place of Informal Logic in Logic."* Logic has been defined as the appraisal of reasoning or argument. We standardly carry out this appraisal by analyzing argument structure, asking critical question, and applying evaluative tools. One approach within informal logic proceeds also in this fashion. We analyze the structure of arguments by constructing diagrams displaying how their elements hang together. We then ask such critical questions as: Are the premises acceptable? Are they relevant to the conclusion? Do they support it with adequate weight? This approach is associated with texts by Beardsley, Thomas, Johnson and Blair, Toulmin *et al.*, Nolt, Govier, and myself. Insofar as this approach constitutes a viable way to appraise arguments, it is genuine logic. However, we may place it within the wider perspective of the logic enterprise by contrasting it in four ways with how logic has been done traditionally. First, this approach is generic rather than specific. The tools which it uses or seeks to develop are intended to be applicable to all arguments, not just those of a specific type. For example, we can construct a diagram of any argument, be it inductive or deductive. Traditional logic, on the other hand, presents tools specific to one type of argument. We do not apply Venn diagrams to evaluate arguments by analogy, nor do we compare categorical syllogisms for argument strength.

Second, the structural analysis of this informal logic approach is concerned with the macrostructure as opposed to the microstructure of arguments. Argument diagrams represent how argumentative elements hang together as wholes, not whether the component statements of arguments are conditionals, disjunctions, categorical propositions, or statements concerning instances of some generalization.

Third, since the focus of informal logic is on arguments in natural language and natural argumentative contexts, this approach within informal logic will be concerned far more with

arguments which seek evidence to rationally justify some claim than with those which seek to derive some conclusion from given premises. That is, it will be concerned far more with inductive, evidential, or probative issues than with deductive questions.

Fourth, as a result of this, since we can argue with Rescher in *Dialectics* that probative questions should properly be studied within the framework of dialectic or disputation, this approach will be at bottom dialectical or dialogical rather than monological, the standard logical stance. By developing these four dichotomies, we intend to place this informal logic approach within the perspective of the logic enterprise in general.

Trudy Govier (Calgary) *"Are Arguments from Analogy a Distinct Species of Arguments?"* In this paper I consider several types of arguments from analogy. I distinguish between inductive and *a priori* analogies, and discuss the issue as to whether arguments of these types should be recast as inductive or deductive arguments. I consider reasons against such recasting and then various objections to these reasons. After conceding that some of the reasons I've given elsewhere for regarding analogies as a distinct type of argument weren't exactly compelling, I move on to treat a number of examples. My conclusion is that despite some errors in my previous accounts, it still makes sense to think of arguments from analogy as a distinct type.

Rob Grootendorst (Amsterdam) *"What a Pragma-Dialectical Approach to Fallacies Can and Cannot Do."* In this paper the author compares the starting-points of the Amsterdam pragma-dialetical approach to fallacies with the so-called Standard Treatment and the approach to fallacies advocated by John Woods and Douglas Walton. He presents a survey of the main problems which can be solved by the Amsterdam approach and a list of the problems which remain to be solved. For solving them, cooperation is required between several disciplines. The author indicates along which lines such cooperation can lead to satisfactory solutions.

David Hitchcock (McMaster) *"A General Theory of Good Inference?"* Formal systems developed in accordance with what Alonzo Church has christened the logistic method make explicit the conditions under which conclusions follow from premises in accordance with the (supposed) meaning of logical words such as "if" or "some". Soundness and completeness results for such systems indicate that we have adequate theories of good inference for such cases.

Of the inferences we actually draw in our thinking and discourse, however, few are formally valid according to such systems. Rather than supposing that we usually do a poor job of drawing inferences, we should consider expanding our conception of good inference beyond that of formal deductive validity.

John Hoaglund (Christopher Newport) *"Why Analyze Arguments?"* Why do we identify, analyze, and evaluate arguments as an activity central to informal logic? One rationale is perhaps more implicit than explicit in the work of argument theorists like David Hitchcock and fallacy theorists like Douglas Walton and John Woods. Essentially it is that we do so in order to turn informal arguments into formal ones because we have agreed-on tests of formal validity to test them. Or perhaps this should be less strongly stated so that we derive guidance on assessing these arguments from well developed formal logics such as the first-order predicate calculus. On this model we reconstruct arguments from 'the messy materials of everyday talk' (the phrase is Joseph Wenzel's) into formal ones to be assessed by the appropriate rules of inference and equivalence. Doubts about this rationale have been raised by Michael Scriven, who calls for a probative rather than a demonstrative logic, and van Eemeren and Grootendorst, who advocate a broader conceptual framework of rules governing dialectical debate.

I offer here not so much a rationale as a working out of a probative logic and dialectical exchange. We analyze and evaluate arguments so that the propositions we assent to and base our actions on are solidly based on evidence, or in other words to become critical thinkers. The aspect of critical thinking that comes to the fore in this connection is itself more implicit than worked out in the well known work of Benjamin Bloom and Robert H. Ennis. Critical thinking is autonomous in that it tests its own norms, and self-correcting in that it monitors its own compliance. The model pedagogy of critical thinking is Socratic dialogue, where one speaker ad-

vances a thesis then gains a deeper appreciation of its foundation by responding to probing questions about it by another. We learn to be critical of our own thinking by first learning what questions to ask of the thinking of others. The final stage of this learning is when we internalize the Socratic critic and ask the same questions of our own thinking. So we analyze arguments to make our thinking autonomous, self-correcting, and hence critical.

Ralph H. Johnson and **J. Anthony Blair** (Windsor) "*Informal Logic: Past and Present.*" "Informal Logic" refers to a reform movement in logic instruction and a reform movement in the normative theory of argument, particularly as found in the academic discipline of philosophy. We have shown how for its first decade that reform was mainly initiated in textbooks. These novel texts stopped serving up invented examples to fit what was regarded as an *a priori* theory and began to offer advice to students about how to interpret and assess the actual practive of argumentation. Subsequently, it has been recognized that the quarrel was not with the theory itself, but with its misapplication by logic teachers. Meanwhile, attention has gradually turned, over the second decade of reform, to generating various components of normative theory of argument more applicable to the actual practice of argumentation. However, there has been no organized program of research, and indeed no unified conception of the task.

In our paper, which will launch the Third Symposium, we return to the task we took up for the first and second symposia—a thorough review of the literature. We investigate (a) the textbooks, (b) the monographs, and (c) the journal articles, published between 1983 and 1988. We discuss any trends that exist, or the absence thereof, in the theory and teaching of developments. We comment on the presence, or absence, of patterns. And from our findings we draw lessons—suggest issues that deserve research, identify problems in theory, and discuss teaching.

Erik C.W. Krabbe (Groningen) "*Inconsistent Commitment and Commitment to Inconsistencies.*" Starting with Aristotle, the paper surveys several instances of *horror contradictionis*, including such seemingly inconsistency tolerant authors as Rescher and Brandom. The perspective is then shifted from inconsistent *beliefs* to inconsistencies in *argumentation* and *dialogue*. How should a system of dialectics rule about inconsistencies? Are they to be condemned as fallacies? Or should they be considered weaknesses in argument? Do they lead to quandaries in Hamblin's sense?

It shall be argued that inconsistency is not a fallacy, i.e., it shouldn't be ruled out by stipulations about dialogue rules. Neither is inconsistency a foolproof indication of some weakness or blunder. However, the rules of dialogue should be framed so as to neutralize any quandarian leanings inherent in inconsistent positions. Often inconsistent statements can be isolated one from the other. But there are some problems.

Tjark Kruiger (Amsterdam) "*The Evaluation of Subordinative Argumentation.*" In oral and written discourse people give as much support for the claims they are advancing as they can. This means that they give *complex argumentation* for their claims. My paper is about one type of complex argumentation, viz. *subordinative argumentation*. In subordinative argumentation, a claim is supported by an argument and this argument by another argument, the last argument by yet another argument, etc. The chain might be quite long. In my paper I will treat how subordinative argumentation must be evaluated. To solve this question I must pay attention to two problems: 1. Under what conditions is subordinative argumentation a sufficient defense for a claim? 2. What is the best procedure to settle the question whether a subordinative argumentation is a sufficient defense for a claim? With regard to both problems I will treat the solutions so far proposed for these problems, point out the inadequacies in these solutions and present my own solution for the problems. Examples will be given.

Lenore Langsdorf (Southern Illinois) "*Dialogue, Distanciation, and Engagement: Toward a Logic of Televisual Communication.*" This paper is a contribution to the theory (in contrast to pedagogy) of Informal Logic, and more specifically, to Informal Logic understood as the logic of "argument (or argumentation) as a communicative practice." I follow Johnson and Blair in under-

standing Informal Logic as "the normative study of argument" and locate my work more precisely (among the variety of endeavors they list as comprising that normative study) within "procedures for the interpretation, evaluation, and construction of arguments and argumentation in natural language." This paper responds to one of the "research tasks" delineated by "the nature of the connection between argument and rationality". For I am concerned here with the nature of argumentation as a practice of reasoning in visual communication (comparatively non-technologized everyday experience as well as televisual experience) in contrast to that practice in verbal communication (discourse as well as print).

I find that our (logic and education theorists') understanding of argumentation is strongly influenced by the form of verbal reasoning. i.e. it is determined by such features as plurivocity of words, linearity of statements, grammatical relations signified by alphabetic devices (e.g., adjectives and verb endings), and distanciated text. But in the past 30 years the dominant context of our communicative practice has shifted from verbality to visuality: the public practice of argumentation is now strongly influenced by the form of television. This means that reasoning practice is determined by such features as the univocity and wholistic nature of images, grammatical relationships signified by technological devices (e.g. montage, zoom shots, and fadeouts), and engagement within text. This is not to say that the form of verbality has passed, or should pass, out of our communicative practice. But I do find that its hegemony has ended, although we (theoreticians) typically continue our "normative study of argument" without cognizance of that change in public practice. Therefore we risk developing theoretical norms which cannot inform actual practice.

In this paper I rely on the work of Havelock, Innis, Lorenzen, Ong, Perelman, and Ricoeur in order to identify some crucial differences between argumentation informed by features of visual reasoning. I then consider the extent to which "procedures for the interpretation, evaluation, and construction of argumentation" within verbal contexts can be transferred to visual contexts informed by televisual experience.

Matthew Lipman (Montclair State) "*Critical Thinking: What Are We Trying To Accomplish?*"

1. Education as inquiry and education for inquiry.
2. Theoretical wisdom vs. practical wisdom.
3. Categorical syllogism vs. practical syllogism. Conclusion as an action, an intention, a command or a judgment.
4. Inquiry for understanding vs. inquiry for judgment. Terminable vs. interminable inquiry. (Rorty, Blumenthal? Endless assessment of criteria vs. provisional acceptance of criteria based upon purpose or context of inquiry (Rorty, Crawshay-Williams).
5. Formal logic with generic considerations vs. informal logic with contextual consideration.
6. Practice as methodical, rule-governed behavior vs. practice as methodical, self-corrective behavior. Inquiry as self-corrective practice. Practice is to action as belief is to thought.
7. Judgment as a logical category vs. judgment as a metaphysical category. Judgment as connecting subject and predicate, universal and particular, rule and case. Judgment as result of deliberation among arguments. Judgment as synthesis of opposing perspectives or arguments. Judgment as possible practice.
8. Professional education as education for judgment. Cognitive practice and cognitive apprenticeship.
9. Judgments as expressions of and assessments of relationships in and among disciplines.
10. Inquiry that terminates in judgments needs to be (1) self-correcting practice; (2) reliant upon criteria and standards; and (3) sensitive to context.
11. Education that stresses the improvement of judgment through self-correcting practice, reliance upon criteria and sensitivity to context is education for critical thinking.
12. All education for critical thinking is education for judgment and all education for judgment is education for critical thinking.

John E. McPeck (Western Ontario) "*Informal Logic and Belief Structures.*" "How useful is informal logic to education?" My suspicion is that the study of argumentation, which is what informal logic is, should consist largely in understanding different *belief* structures, which would move the locus of our attention away from any kind of *logic* and toward beliefs, which

is *epistemic*. My paper will attempt to show how and why this is the case, by providing a critical examination of the views of informal logic which have been presented by Michael Scriven, and also by R. Johnson and A. Blair.

C.A. Missimer *"Dispositions and Critical Thinking."* This paper will offer a metatheory of critical thinking, then a brief theory of critical thinking, both to be used as arguments why consideration of the critical thinker's dispositions should be left out of the theory of critical thinking—contrary to the views of many theorists of critical thinking. The metatheory of critical thinking is that the best theory of critical thinking is (1) the simplest, (2) the most explanatory of the phenomena in question and (3) the best grounded empirically. These three criteria are features of many disciplines—particularly science. Intellectual history shows that adherence to these precepts produces increasingly accurate theories. Basing theories of critical thinking upon past acts of great critical thinking, commonly accepted as such, provides the empirical grounding necessary to our ability to falsify theories which do not explain the phenomena as well as others.

Given this metatheory, I would suggest that critical thinking is a consideration of alternative theories (arguments, hypotheses) in light of their evidence. This theory predicts a positive correlation between past works of great critical thinking and preoccupation with alternative theories and their evidence; it predicts a negative correlation between consideration of alternative hypotheses and writing that is not considered critical thinking. This theory is therefore falsifiable since such correlations may not exist, or may not be found. While explicit about critical thinking, this theory is mute about character traits and dispositions of the critical thinker, for several important reasons. First, the dispositional theory presents a welter of traits some of which conflict (this violates simplicity). Second, various theories of critical thinking have not offered their character profiles in the spirit of falsifiable prediction but as beyond question necessary for critical thinking. Yet there is no evidence to support the view that such traits are necessary for critical thinking (which violates the rule requiring empirical grounding).

One advantage of the theory I have presented is that is sticks to the writing and speech—the thinking—of the individual which will be open to public inspection in a way that evidence about a person's character (elusive and often private) is not. A second advantage for my theory is that attributes like fair-mindedness are vague. If it is defined concretely as consideration of alternative theories, then that view reduces the character view to the theory of critical thinking I am proposing here.

Richard Nisbett (Michigan) *"Conditional Reasoning."* Conditional reasoning, or if-then reasoning, is widely assumed by both philosophers and psychologists to be handled by the rules of formal logic—the material conditional. Evidence has been mounting for years, however, that people have great difficulty with the material conditional. They fail badly on the Wason selection task, for example.

Research to be presented suggests that people in fact make little use of the conditional or of any other rules at that level of abstraction. Instead, people solve real problems in everyday life by using what might be called "pragmatic inferential rules" or "pragmatic reasoning schemas". There are two broad classes of such schemas—contractual schemas and causal schemas. The former are used for reasoning about permissions and obligations, the latter for reasoning about causal relations. The procedures used to determine whether there has been a violation of a rule differ across contractual schemas and across causal schemas, as a function of the necessity and sufficiency of the condition part of the schemas for the action part of the schema. There is a deep relation across the two classes of schemas at the level of necessity and sufficiency, as suggested by the fact that intensive instruction in contractual relations improves causal reasoning and vice versa.

Stephen P. Norris (Memorial) *"Value Judging in Science."* Value judging is one important activity in thinking critically. However, there is a widely held mistaken belief that value judgments are mere expressions of opinions. That is, it is widely believed that value judgments do not result from critical thinking. It is argued in this paper that an effective way to combat this mistaken belief would be to challenge another widely held mistaken belief. Namely, that the conduct of basic science is a value-free activity. By showing that even basic science requires value judgments, people would see that even scientific knowledge, the sup-

posed exemplar of objective and value-free products of human reasoning, is based upon value judgments. With this realization, then maybe they will understand value reasoning in its proper light. The paper provides two examples of value judgments in basic science. The first shows that what scientists take to be the referents for natural kind terms depends fundamentally upon value judgments of the standard conditions under which the referents of those terms should be determined. The second example demonstrates that solving the fundamental equation of pendulum motion requires judgments of value. It is argued that exposing science students to such examples can help dispel two prevalent and pernicious myths: (a) that value judgments are mere expressions of opinions, and (b) that basic research in science is value-free.

Richard W. Paul (Sonoma State) *"Critical Thinking: A New Theory of Knowledge, Learning and Literacy."* The pace of change in the world is accelerating, yet educational institutions have not kept pace. Indeed, schools have historically been the most static of social institutions, uncritically passing down from generation to generation out-moded didactic, lecture-and-drill-based, models of instruction. Predictable results follow. Students, on the whole, do not learn how to work by, or think for, themselves. They do not learn how to gather, analyze, synthesize, and assess information. They do not learn how to analyze the diverse logic of the questions and problems they face and hence how to adjust their thinking to those problems. They do not learn how to enter sympathetically into the thinking of others, nor how to deal rationally with conflicting points of view. They do not learn to become critical readers, writers, speakers, and listeners. They do not learn how to use their native languages clearly, precisely, or persuasively. They do not, therefore, become "literate," in the proper sense of the word. Neither do they gain much in the way of genuine knowledge since, for the most part, they could not explain the basis for what they believe. They would be hard pressed to explain, for example, which of their beliefs were based on rational assent and which on simple conformity to what they have been told. They have little sense as to how they might critically analyze their own experience or identify national or group bias in their own thinking. They are much more apt to learn on the basis of irrational than rational modes of thought. They lack the traits of mind of a genuinely educated person: intellectual humility, courage, integrity, perseverance, and a faith in reason.

R.C. Pinto (Windsor) *"Informal Logic and Epistemic Appraisal."* The thesis of the paper is that the categories of argument appraisal appropriate to informal logic are closer to the categories of appraisal employed by epistemologists than to the categories of appraisal employed by formal logicians.

Formal logicians have most often pronounced an argument OK (sound) just in case (i) its premisses are true and (ii) its premisses imply its conclusion: a sound argument is a valid argument with true premisses. Informal logicians have begun to use, and I contend ought to continue to use, very different categories for appraising both the premisses of arguments and inferential link between premisses and conclusion. I argue, as have many others, that truth is neither a sufficient nor a necessary condition of premiss acceptability.

My thesis is that in any notion of acceptability appropriate to informal logic, a premiss will be acceptable *for a person at a time*. I argue further that the notion of inferential link appropriate to informal logic also needs to be relativized to persons at times. I show this in course of showing that deductive validity is not a sufficient condition of adequacy of support, that it doesn't follow from the fact that p entails q that it's correct for me to infer q from p.

From the fact that the categories of appraisal appropriate to informal logic are relative to persons at times, I conclude that informal logic appraisal is more like epistemic appraisal than it is like formal logic appraisal.

Michael Scriven (Western Australia) *"The Philosophy of Ordinary Logic."* The paper discusses the following points about the *general or abstract aspects* of the informal logic movement—here sometimes referred to as the 'ordinary logic' movement:

1. The argument that the informal logic movement is *the* heir to the Western intellectual tradition, by contrast with: (i) esoteric subject matter disciplines; (ii) esoteric philosophy; (iii) the 'scientific method', never defined in any operational way and all the more easily worshipped without understanding; (iv) formal logic as

an exercise in converting ordinary logic into an esoteric subject matter discipline; (v) political critique, with its deep sensitivity to the hidden agendas of social systems and the arguments of their apologists, but an absence of concern with the development of general intellectual skills.

2. The way in which the ordinary logic movement relates to the ordinary language movement; in particular, (i) the way in which it has avoided the focus on the trivial (at least, on what was seen by most observers as trivial), (ii) the way in which it has nevertheless benefited from the sharp tools which the ordinary language analysts developed.

3. The direction in which the movement is and/or should be going, particularly towards developing frontier posts at the boundaries with, or enclaves within, a number of territories. The last few years have seen a welcome series of alliances with workers in fields like rhetoric, argumentation theory, and education. But a good deal more needs to be done. Areas or projects needing attention include:

(i) the interface with psychology, with increasing attention to (a) the mechanisms of defense, denial, and seduction, and their manifestation in forms or details of argument, and (b) risking and decision strategies;

(ii) the now 20 year old discipline of evaluation, the most anxiety-provoking of all the intellectual disciplines, excluded from the list of the components of scientific method, apparently for no other reason but its threat-potential, yet more central to both science and reasoning than any other intellectual process;

(iii) a radical reworking of the logic of the law, which contains so much of such importance to ordinary logic, but—so far—very badly conceptualized;

(iv) the computerization of ordinary logic (more precisely, the development of computer-assisted approaches) via a graphics modality rather than the procedural or programming one that was better suited to formal logic. The graphics approach can very nicely handle fuzzy logic, one of the important breakaways from traditional symbolic logic (along with many-valued logic and the misnamed relevance logic), as well as 'stretchy logic'—the logic of probative inference, in which the 'imprecision' (as formalists would describe it) concerns the connections of conclusions related to the central notion rather than with peripheral vagueness;

(v) the interface with literacy (the long-overdue idea that literacy must include some argumentation skills in order to be an important goal);

(vi) the connection with radical political critique, which Richard Paul often and rightly reminds us about.

Marie Secor (Pennsylvania State) *"Rhetoric and Informal Logic."* What does the discipline of informal logic have to tell rhetoric? Its greatest contribution, I think, is its emphasis on the structural components of arguments. As teachers of writing in general (and, within our own discipline, of literary analysis), we rhetoricians in English departments want our students to be able to read critically, to examine any piece of discourse and understand the relationship between premises and conclusions. This analytic work is essential to our understanding of discourse in any field. As both readers and writers, we need to be able to flesh out enthymemes, to comprehend not just the surface structure of discourse but also the whole web of assumptions and implied and stated connections that make up every argument. Informal logic shows us that such analysis is not a mechanical activity; arguments have formal features, but recognizing them is an act of creative reading. It is the job of the writing teacher to help this analytic skill carry over into the construction of arguments.

What does rhetoric have to offer informal logic? An understanding of rhetorical situation, primarily, of the constraints and exigencies that affect both the intervention and the evaluation interpretation of discourse. Recent emphasis on the rhetoric of various disciplines is also important for informal logic, for different fields may employ different characteristic structures and lines of argument, and they may construct and adapt to their audiences differently. Finally, rhetorical analysis emphasizes the persuasive power of figurative language, which, to borrow Chaim Perelman's term, makes arguments "present" to their readers. In sum, rhetoric's emphasis on the interrelationship between audience and text may be its most significant contribution to informal logic.

Harvey Siegel (Miami) *"The Epistemology of Informal Logic."* I intend this paper to be a contribution to our theoretical, and specifically epistemological, understanding of informal logic. How do we evaluate informal arguments?

What criteria and principles of evaluation do we appeal to, and why are these criteria and principles thought to have epistemic force? How are such criteria themselves justified? These questions are basic to the epistemology of informal logic. I will attempt to answer these questions concerning informal logic by comparing them to parallel questions about formal logic. How does modus ponens get justified? Why are we justified in rejected a formal argument which affirms the consequent? Whatever the answers to these questions, can similar answers be given to parallel questions regarding the criteria of informal logic? Do we justify informal criteria like 'interpret charitably' or 'speak to the argument, not the person' in the same way we justify formal criteria like 'see if it is valid' or 'check by a truth table'. In particular, I will consider Goodman's treatment of the justification of deductive criteria by appeal to 'reflective equilibrium' (*Fact, Fiction and Forecast*), both to see if it works for formal logic and see if it can be usefully applied to informal logic. The general idea of this paper is to contribute to our understanding of the epistemology underlying (the principles and criteria of) informal logic.

Christopher W. Tindale (Wilfred Laurier) *"Contextual Relevance in Argumentation."* I first provide a brief review of some history and literature pertinent to 'relevance' as a logical and psychological idea. Then I develop an account of relevance, seen as a broadly contextual relationship, that accommodates and advances some of the more significant points identified in the review.

The account comprises three sub-divisions: internal-relevance, topic-relevance, and audience-relevance. Each of these is discussed and illustrated.

Stephen Toulmin (Northwestern) *"The Topicality of the Topics."* Logic was originally concerned with *all* those features that make reasoning sound or shakey. Only a small part of its subject matter was open to study in formal, quasi-geometrical terms ("analytics"): other aspects, e.g., "dialectics" and "topics", had to be discussed discursively. Recent developments in many branches of philosophy have revived interest in these latter, non-formal aspects of logic, which were eclipsed after the invention of "modern philosophy" by Descartes. Central issues in current jurisprudence and philosophy of science, practical science and medical ethics, for instance, focus on features of reasoning that Aristotle would have called "special topics"—i.e., patterns of reasoning proper to particular fields of discussion or types of patterns.

The crucial change since Aristotle's time lies in our escape from eternalism and essentialism. In all fields, substantive patterns of reasoning are both the products of past experience and also subject to revision in the light of future experience. So, our understanding of these substantive patterns of reasoning is inseparable from a certain kind of critical conceptual history.

Robert Trapp (Stonehill) *"A Social Interactionist View of Fallacies."* Some, (e.g. Copi) see formal logic and informal logic as two integrated parts of a coherent theory of argument criticism. Others, (e.g. Johnson and Blair) believe informal logic should be considered a replacement, rather than addition to, formal logic as a tool for the criticism of arguments. This essay takes as one of its premises, the idea that formal logic is inappropriate for argument criticism. I will argue further, that the fallacy approach, one of the mainstays of informal logic, does not make a sufficient break from formal deductive logic and thus, remains substantially removed from the world of everyday argumentation.

A fallacy is a breach of rules of good argumentation. Since the rules of deduction govern formal logic, a formal fallacy is one that violates the rules of deduction. For informal logic, these rules are some rather loosely defined canons of good reasoning. Thus, an informal fallacy involves an argument that violates these rules of good reasoning.

While formal and informal logic differ in their definition of the rules of good arguments, they seem to be in agreement on two interrelated premises. First, the criteria which govern good arguments are objective rather than personal or social ones. They have an existence of their own, apart form an everyday arguer's *perception of* them. Second, these standards are ideals; they are normative rather than descriptive.

In this essay, I will argue for a social interactionist approach to fallacies. This approach is social rather than objective: it is descriptive in addition to normative. This view retains one feature of Blair and Johnson's (1987) dialectical

view of argument—the idea of an audience. Blair and Johnson's view proposes an audience composed of a "model interlocutor." This view loosens their grip on the criterion of objectivity but not the criterion of the ideal. The social approach to fallacies for which I will argue, will release both criteria. Instead, I will propose a system of fallacy based on a description of social and personal standards of effective argumentation.

Frans H. van Eemeren (Amsterdam) *"Informal Logic and Argumentation Theory."* In this paper, the author presents a survey of various contributions to the theory of argumentation. Starting from the idea that a comprehensive research program in the study of argumentation should encompass five connected components, he compares the contributions to the philosophical, theoretical, reconstructive, empirical and practical components. In doing this, he particularly emphasizes the similarities and the differences between the contributions which can be characterized as 'informal logic' and the results of the pragma dialectical approach. As a conclusion, the author indicates in which respects these two approaches can benefit from each other.

Mark I. Vorobej (McMaster) *"Defining Deduction."* Informal logic is often defined as the study of argumentation. Yet surprisingly, philosophers working within the field of informal logic have been unable to agree upon how many different *types* of argument exist. One reason for this disagreement is apparent. Although for centuries it was assumed that every argument must be either deductive or inductive, there is today at any rate considerable confusion over the question of exactly what a deductive argument and an inductive argument are.

This paper concentrates on the problem of defining the concept of a deductive argument. The paper has three parts: First, a survey of a number of recent textbook discussions of this problem is conducted. This survey both confirms that there is no consensus amongst philosophers on this issue and highlights a number of problems that an acceptable definition of deduction must avoid.

Second, a fully *psychological* definition of a deductive argument is offered which makes reference to nothing beyond the beliefs and intentions of the author of the argument. It is argued that this definition has theoretical advantages in so far as it is built upon a *dialetical* conception of what an *argument* itself is. This dialectical conception is crucial to understanding how the study of informal logic differs from the study of formal deductive logic. It is further argued that this definition has pedagogical advantages in so far as it helps to unify a number of concepts and skills that a beginning logic student acquires, usually very early on in a course, in the process of learning how to identify arguments and supply missing premises or conclusions to enthymematic arguments.

Finally, the paper closes by outlining how a parallel account of inductive argumentation may be developed while still acknowledging that there exist some arguments which are neither deductive nor inductive.

Douglas N. Walton (Winnipeg) *"Commitment in Dialogue."* This presentation is a summary of recent research undertaken jointly with Erik Krabbe at NIAS. Case studies will be used to show how commitments are incurred and retracted in reasonable discussions of different kinds. The concept of commitment utilized is derived from the notion advaced by C.L. Hamblin in his book *Fallacies* (1970), where it is the central component in the dialectical game (set of rules for reasoned "logical" discussion between two participants, usually a questioner and a respondent).

Perry Weddle (Sacramento) *"Aesthetic Arguments."* Ninety-five-plus percent of "global" logic, "informal" logic, or "critical thinking" university-level textbooks, including those with "practical" in their titles, contain no model, and only peripheral discussion, if any, of practical arguments, those which conclude not, "x *is* the case," but, "*do* x" (or, "it'd be a *good idea* to do x.") Yet ninety-five-plus percent of all arguments, surveyed empirically in the realms from which informal logic usually claims to draw, are practical: Join v. Vote v. Buy w. Embrace x. Shun y. Marry z... .

Accordingly, the practical argument seems a prime Informal Logic topic. Apparently Professor Douglas Walton thinks so too, for *Argumentation* 3:1, February, 1989, p. 72, n. 18, contains a just-today-discovered reference to a Walton book *in press* on the subject! "Best-laid plans," in other words, for now, has a new member, the author's erstwhile submission for

this conference.

The author's substitute, for all he knows, is also anticipated by Walton or by others. (Somehow, he doubts it; it's totally rad.") Instead of arguments concluding, "x *is* the case," or concluding, "*do* x," he proposes a *third* category, temporarily dubbed the "aesthetic" argument. This (misnamed) creature concludes not, "x *is* the case," not, "*do* x,"... but, "as a rational person, *consider* x."

Is the "aesthetic" argument a subset of the practical? Yes, and no. Both answers will be explored. From the "home base," (this but incidentally the occasion for speculation) namely, a certain class of aesthetic judgments, the author will explore the *generalizability* of the form, or "form": The frontiers of theoretical science, "hard" cases in ethics and the law, and several conceptual issues, math to music, seem fertile ground. The "generalizability" attempt raises issues related to Toulmin/McPeck-type claims about field-dependence.

Mark Weinstein (Montclair State) *"Informal Logic and Applied Epistemology."* Informal Logic has been developed almost exclusively by Philosophers and has reflected theoretical and practical perspectives characteristic of the discipline. Even where informal logic was informed by other disciplinary perspectives (argumentation theory, rhetoric) these had at their core philosophical concepts and attitudes. This does not bode well for the general utility of informal logic as a framework for understanding argumentation in the special disciplines, if argumentation reflects substantive methodological principles internal to particular fields or epistemic traditions not adequately captured in the philosophical accounts.

In this paper I will try to show, by a number of examples, that particular aspects of informal logic are insufficient to evaluate arguments in the domains in which they are presented. I will show this both for a number of informal fallacies and for the general procedure of argument diagramming. For the latter, I will argue that the significance of support can not be ascertained in terms of structural relations alone, but rather, that an analysis of the nature and strength of the supporting premisses requires a substantive appraisal of their place in the field and relative to the problem situation within which the argument is presented.

Informal logic has been presented as a movement away from the apparent irrelevance of formal logic for understanding argumentation. If my position is correct, informal logic does not go far enough. Informal logic must be connected to the study of applied epistimology, methodology in the major domains of inquiry, if the ideal of understanding argumentation is to be relevant to many of the most significant domains within which argument occurs.

Joseph W. Wenzel (Illinois—Urbana/Champaign) *"The Significance of a Rhetorical Perspective on Argument."* In this paper I hope to further clarify the nature and significance of a rhetorical perspective on argument and its relation to dialectical and logical concerns. Thesis: understanding natural language arguments requires attention to their rhetorical character as well as their logical and dialectical features. Argument is rhetorical in (at least) the following respects. (1) Argument is a social process of giving and taking influence through symbolic interaction. (2) Arguments arise in rhetorical situations, i.e. situations that invite utterance as functional response to exigencies. (3) Arguments are addressed/adopted to audiences. (4) Arguments entail verbal artistry. (5) Arguments are typically imbedded in larger discourse structures and function in relations to other discourse elements. (6) The exercise of human judgment in situations of uncertainty requires the construction of rationalizing discourses, and such discourses are rhetorical creations.

Rhetorical analysis and criticism of argumentation complements logical analysis and evaluation. Rhetorical criticism is an interpretive practice that seeks to comprehend the interaction of speaker, speech and audience in time and place. Rhetorical critics try to explain how discourses work, including "how arguments get themselves made." By virtue of trained sensitivity to the contexts of discourse and to the infinite means of symbolic expression, rhetorical critics can contribute to the identification, explication, analysis and evaluation of arguments.

Regarding argumentation as a communication process aimed at the achievement of critical decision, it becomes apparent that the competent arguer requires rhetorical knowledge and skill. Whereas logic was historically concerned with the evaluation of arguments, rhetoric was historically concerned with invention and expression. In the classical tradition (which, in-

cidentally, is still alive and well in departments of speech and communication), rhetoric taught the speaker how to analyze a controversial subject in terms of its constituent issues, how to seek out appropriate supporting materials for claims, how to organize a discourse, how to adapt one's appeals to an audience, and so forth. At least since Protagoras, the rhetorical tradition has made much of *controversia*, both as an exercise in critical discussion and as a way of thinking creatively by juxtaposition of ideas. Thus, in its best forms, the art of rhetoric has allied with dialectic and logic to produce fully competent arguers. The alliance, happily, seems to be on the verge of a renewal.

Charles A. Willard (Louisville) *"Renegade Intellectual Movements."* The growth of the Informal Logic movement is an example of the way new ideas establish themselves in older disciplines. Like all peripheral intellectual movements, it has left some dangling threads as it moved away from Philosophy's center. Specifically, it is (or has) an unclear epistemology, which needs to be explicated.

Steve Fuller's new book, *Social Epistemology* (Indiana, 1988) suggests that epistemology must become a sociological enterprise. This position closely parallels my own arguments about the new ways social scientists view knowledge. My own conclusion was that a whole new field, Epistemics, is coming into existence—another peripheral movement embodied in the work of scholars from several different social sciences. The main purpose of my paper is to lay out ways Fuller's sociological epistemology or my own Epistemics may provide a clear view of human knowledge for pedagogy in informal logic.

The secondary agenda is to investigate the difference between working *within* an established discipline (Fuller) and working from *outside* a going social order (Willard), with a view to yielding insights about the strengths and weaknesses of disciplinary continuity.

These two goals have consequences for Informal Logic, for it makes a difference whether informal logicians stress continuity with Philosophy versus their own independent discplinary status.

Michael J. Wreen (Marquette) *"Some Remarks on Fallacies."* This paper is a critical overview of a number of issues in fallacy theory. The general position taken is not as radical or new as some currently on the market (e.g., Finocciaro's or Massey's), but it is not as conservative or traditional as a number of others (e.g., those implicit in most logic tests). I first define "fallacy" in a relatively traditional sense, then defend and explore the definition at some length. Next, I argue, first, that fallacies are indeed committed—they are not merely "in the mind of the interpreter," as one critic put it—and, second, that a theory of fallacies is possible, at least in a minimal sense of the term "theory." Connections between the concepts of a fallacy and an argument are also noted and explored.

John Woods (Lethbridge) *"Relevance as a Theoretical Constraint in Accounts of Argumentation."* It is as commonplace and ancient as logic itself that arguments need to be transacted by appeal to considerations of relevance. This central intuition is more or less inefficiently adumbrated by claims such as "Evidence cannot justify the conclusions that it does justify if it is irrelevant to those conclusions." Notwithstanding its central importance for argumentation theory, relevance is perhaps its least well understood concept.

Worse, recent attempts at clarifying the relevance relation have been undertaken under conditions of methodological self-destruction. If, for example, one tries to understand relevance in terms of conditional probabilities, one must endure the consequence that conditionalization is subject to disturbingly *ad hoc* constraints; and actually using conditionalization as a rational guide leads to a combinatorial explosion. On the other hand, if one were to pursue the analysis of relevance in terms of topical overlap, one would need a decent theory of categories in order to represent relevance in a deep and theoretically satisfying way. But category theory is a mess.

Things are so difficult with relevance that one can find oneself *slightly* tempted by the strategic allure of making relevance primitive in the theory of argument. But that would leave argumentation theory half-baked.

I suggest that the theory of relevance is at least partly an empirical matter and that its future development may depend on a rapprochement between cognitive psychology and logic. □