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# Making Sense of "Informal Logic"

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# Making Sense of "Informal Logic" 1

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Abstract: This paper is an exercise in intellectual history, an attempt to understand how a specific term—"informal logic"—came to be interpreted in so many different ways. I trace the emergence and development of "informal logic" to help explain the many different meanings, how they emerged and how they are related. This paper is also, to some degree, an account of a movement that developed outside the mainstream of philosophy, whose origins lie in a desire to make logic useful (echoing Dewey)

Résumé: Cet article décrit l'histoire intellectuelle du terme « logique non formelle » pour essayer de comprendre pourquoi ce terme est parvenu à recevoir autant d'interprétations différentes. Je trace le développement de « logique non formelle » pour expliquer ses différentes significations, leurs émergences, et les relations entre elles. C'est article est jusqu'à un certain point un récit d'un mouvement qui s'est développé hors du courant philosophique principal et à partir d'un désire de rendre la logique plus utile (pour faire écho à Dewey).

Keywords: informal logic, formal logic, argument, inference, fallacy, pragmatic

#### 1. Introduction

Having been co-editor of this journal since its inception in 1979 as the *Informal Logic Newsletter* and then its transition to a journal in 1984, and having spent more than 35 years working in this area, I believe that this issue of the journal affords an appropriate occasion to offer some reflections, yet again, on the term "informal logic." On a number of occasions, Blair and I have offered our views of what we call informal logic (1980, 1983, 1987, 1994, 1996, 2000, and 2002). I have long been aware, as have others, of the variety of meanings that have come to be associated with the term. For a long time, I found this apparent "anarchy" both perplexing—no similar problem seemed to occur with the term "formal logic"—and upsetting. Recently, I have come to a different take on the situation. It came about as I attempted, once again, to sort through the history of the term, and the various ways in which it has been interpreted. Instead of searching for the one true meaning, I began to look for threads. And I began to ask myself: "How did this term come to have these quite different meanings?" More importantly, as you will see shortly, I asked: "Why?"

In this paper, I want to provide my answers to those questions. I begin by setting forth a number of these differing conceptions of informal logic—just to

show the range. Then I want to sketch the recent history of the term. I believe I have assembled a list that is somewhat representative of how "informal logic" has been understood. That treatment, though neither comprehensive nor systematic, will provide the platform for my attempt to explain this variety and on that basis offer some interesting and helpful insights into informal logic.<sup>3</sup>

# 2. An inventory of differing conceptions of informal logic, arranged chronologically

#### Introduction

Here is a partial, but indicative, list of the range of meaning assigned by various writers and thinkers to "informal logic":

the logic of substantive concepts (Ryle, 1953)

the logic of the natural-language counterparts of the formal devices (mentioned by Grice, 1975)

logic that is neither inductive nor deductive (Carney and Scheer 1964, Rescher, 1964)

the logic of argument and informal fallacies (Johnson and Blair, 1980)

the theory of reasoning (Finocchiaro, 1984)

the study of principles of good reasoning (Goldman, 1986)

logic minus deductive and inductive logic (Copi, 1986)

the logic of argumentation (Blair and Johnson, 1987)

the theory of critical thinking (Scriven, 1987)

pragmatic (Fogelin, 1976; Walton, 1990)

rhetoric (Toulmin, 1992)

applied epistemology (Weinstein, 1994)

the study of warrants (Weinstein, 1994: Hitchcock, 2000; Pinto, 2001)

This kind of range of meaning is unusual. One does not encounter such wideranging use in connection with "formal logic," or "inductive logic"—although some similarities exist.<sup>5</sup> It indicates that "informal logic" is a "fluid designator." And it may be that this variety has sponsored some confusion. In any event, to help understand this wide range of meanings assigned to "informal logic," it will be helpful to proceed chronologically.

The evolution of the idea of informal logic: a sketch

In this account, I have confined my attention to the dominant print medium—with special reference to the scholarly and academic literature from 1950. I do not here consider how informal logic has fared in Cyberspace—a subject for another paper.<sup>6</sup>

Nor have I attempted to include in this account such cognate terms as "non-formal logic," "material logic" (which comes out of the Aristotelian/Medieval tradition), "informal reasoning," or "informal argument."

This inventory is just that—a sample of places where the term "informal logic" has turned up. I have selected texts in which various authors attempt to characterize "informal logic," with particular attention to authors who have associated themselves with the informal logic movement. There are two basic strands: the first emerged in Great Britain in the 50s and seems to peter out in the 70s; the second in North America beginning in the 60s and continuing into the present. The two strands appear to be independent.

#### Informal logic in Great Britain

#### 1952: Strawson, Introduction to Logical Theory

In Chapter 8 of this highly influential work *Introduction to Logical Theory* (1952), Strawson draws a contrast between two kinds of logic: Formal Logic and what he calls "the logic of language" (230-232). Strawson never, so far as I can tell, uses the term "informal logic," but the contrast he developed certainly anticipated and may well have influenced Ryle. He writes: "Side by side with the study of formal logic and overlapping it we have another study: the study of the logical features of ordinary speech. The second study can illuminate the first, and can be illuminated or obscured by it" (231). In his informative article, Aldrich writes: "The final remark of Strawson's cited essay may be tell-tale: 'Ordinary language has no exact logic.' Such a comment generally comes out of the old preconception of logic—the notion that if it were exact, it would be the formal traditional thing. It is this position beyond which progress must be made" (1954:384). Now to Ryle.

# 1954: Ryle, Dilemmas

Perhaps the most salient use of the term "informal logic" in this period is that found in Ryle's *Dilemmas* (1954) in the Chapter titled "Formal and Informal Logic." According to Ryle, Formal Logic maps the inference powers of topic neutral expressions or logical constants on which our arguments pivot, terms like "all," "if, then" and "or." Philosophy, on the other hand, has to do with the topic or subject matter concepts which provide the fat and the lean, but not the joints or the tendon. According to Ryle, the philosopher examines such notions as pleasure, colours, the future and responsibility, while the formal logician examines such notions as *all*, *some*, *not*, *if* and *or*"(116). Throughout the chapter, the contrast Ryle draws is between the formal logician and the philosopher. Only at the end (124) does Ryle shift, saying that the philosopher is perforce doing what might be called "Informal Logic." The suggestion that his problems, his results or his procedures should or could be formalized is "as wildly astray, as would be the corresponding suggestion about the soldier, the cartographer and the trader" (124).

On p. 129, Ryle says: "What I hope to have done is to have brought out for examination some features of what I have dubbed the 'informal logic' of our ordinary and technical concepts; and shown how questions about this informal logic are forced upon us by the ...quarrels which break out from time to time between one team of ideas and another." Thus for Ryle informal logic is distinguished from formal logic by its focal point: formal logic focuses on the logical constants, whereas the other logic focuses on issues that arise in the employment of ordinary and technical concepts; hence, its close association with philosophy. It is logic because it is focused on the study of implications; it is informal because these implications hold, not in virtue of form, but rather of content. For Ryle, logic of either sort focuses on the implication relationship.

# 1975: Grice, The Logic of Conversation

In this influential paper, Grice contrasts the formalist and informalist approaches. I shall take this contrast as *de facto* a contrast between formal and informal logic, even though Grice never uses the term "informal logic."

According to Grice, the formalist is interested in developing as much as possible a formal account of language and meaning. For this purpose, the formalist has developed certain formal devices (here Grice seems to be thinking mainly of the truth-functional connectives plus quantifiers, but there is no reason to limit him to these). Formal logicians are concerned to develop "very general patterns of valid inference" and want to employ formal devices to that end. They want these formal devices because of their power (they grow decision procedures) and generality, and also because they are capable of greater rigour and precision—ideals that the formalist values. Precisely because the formalist tends to view ordinary language as confused, ambiguous and potentially laced with bad metaphysics, the formalist is prepared to shift to the study of ideal languages, where by that one would understand something like a language sufficient for the doing of science, as Grice says on page 150. Formalism is thus presented as part and parcel of a program that called for philosophy to eliminate metaphysics and model itself after science.

The informalist, on the other hand, is presented as resisting the demand for an ideal language on the ground that it rests on assumptions that should not be conceded. (These assumptions are not identified.) Language, the informalist will tell us, serves a variety of purposes besides those of scientific discourse, and the informalist holds that we can know what an expression means without knowing its analysis (pace G. E. Moore). Moreover, the informalist holds that there are many "inferences and arguments" (emphasis mine) expressed in natural language and not in terms of these devices that are recognisably valid" (157). (Grice gives no examples.) According to Grice, the informalist is motivated by the thought that there must be a place for an unsimplified and unsystematic logic of the natural-language counterparts of these (formal) devices whose job it would be to develop rules to appraise the validity of natural language arguments, not expressible by

means of the formal devices. That enterprise, I take it, would be what Grice thinks of as informal logic. It is the logic of the natural counterparts (whatever this means) of the formal devices.

How are the two logics related? Grice says that this second logic may be aided and guided by the simplified logic of the formal devices but it cannot be supplanted by it. The two logics not only differ but they sometimes conflict: "Rules that hold for a formal device may not hold for the natural counterpart" (158). For Grice, then, the informalist is concerned with validity in a way that supplements formal logic. But it should also be noted that the contrast developed by Grice is heuristic; I do not take him to be endorsing either view.<sup>7</sup>

Thus Strawson, Ryle, and Grice all see informal logic as contrasting with formal logic, and having its own contribution to make. But each sees that contribution in different terms. For Strawson, it is focused on the logical features of ordinary speech. For Ryle, it is focused on the logic of our technical and ordinary concepts; and for Grice, it is the logic of the natural language counterparts of the formal devices.

After Grice, so far as I can determine, prominent usage of the term virtually disappears in Britain. I shift now to the North American scene, where informal logic turns up in a quite different setting—logic textbooks. These uses constitute the second strand.

# Informal logic in North America

There are two phases of development, an initial one that begins in 1964 and may be taken as ending in 1980; and a second phase that takes us through the 80s and 90s.

# The First Phase of Development8

1964: Rescher, Introduction to Logic; Carney & Scheer, Fundamentals of Logic

The first occurrence of the term "informal logic" in a textbook (that I am aware of) occurs in 1964. It is one of those quirks of history that we find the same term appearing in 1964 in two texts, each independent of the other, and each using the term to designate a part of the logic text, but neither of them offers an explanation of its meaning. So we must infer that meaning from how they use it.

Rescher. *Introduction to Logic*. Part I of Rescher's text is titled "Informal Logic." (Part II focuses on syllogistic logic, Part III on symbolic logic—propositional and quantificational—and Part IV on inductive logic.) In the introduction, Rescher characterizes Part I as being about informal language and common discourse logic, and it covers these topics: Ch. 1, on logic and discourse; Ch. 2, on words, names and terms; Ch. 3, on definition and classification; Ch. 4, on evidence, argument and fallacies; Ch. 5, on informal fallacies; and Ch. 6, on

logical exposition. "Informal logic" thus appears to be a term used by Rescher to refer to a collection of topics, foremost among which are language and its role in logic, plus the informal fallacies.

Carney and Scheer. *Introduction to Logic*. Here "Informal Logic" is used, without any explanation, as the title of Part One of the textbook, containing the following six chapters: Ch. 1, on appraising arguments logically; Ch. 2, covering traditional informal fallacies (divided into fallacies of relevance, insufficient evidence, and ambiguity); Ch. 3, devoted to definitions; Ch. 4, on uses of language; Ch. 5, about analogy; and Ch. 6, about dilemmas and paradoxes. Part 2 of the book is called "Formal Logic" and Part 3 is called "The Logical Structure of Science." Although Carney and Scheer do not say what exactly they understand by the term "informal logic," here is how they describe Part I:

Part I, Informal Logic, contains both new and traditional topics and some novel treatment of traditional topics. Informal fallacies, which are useful in motivating students in the study of logic, are treated in the traditional manner. The standard topics—analogy, dilemmas, uses of language, classifications of methods of defining terms and types of definition—are also discussed in this part. But two topics are introduced—paradoxes and nonsense—which are not found in many introductory logic textbooks. The discussions of nonsense and the uses of language are designed to bring to the attention of the student some of the immediate connections between logic and language and to show the student the significance of logic to philosophy. (vii)

While Carney and Scheer believe that there are traditional topics for informal logic, it is not altogether clear what tradition they have in mind. Their innovations are aimed at showing the student the significance of logic for philosophy, rather than putting it forth as a tool for the appraisal of reasoning in everyday situations. Based on their description and the contents of Part One, Carney and Scheer mean by "informal logic," besides the informal fallacies, "these matters related to logic not taken up by formal logic." This may be the first expression of the idea that informal logic attends to those matters left over from, or not attended to, by formal logic: such matters as encoding the argument into the canonic notion of formal deductive logic, or the role of language, for example. Here we see informal logic assigned the role of adjunct to FDL.9

Rescher's use of "informal logic" differs slightly from that of Carney and Scheer. He seems to take the term to refer to dealing with the informal fallacies and matters of language. Such differences in the meaning assigned to "informal logic" continue to occur as the term gains currency.

# 1976: Munson, The Way of Words: An Informal Logic

Munson is, to the best of my knowledge, the first textbook author to offer what he calls a "rough and ready definition" of "informal logic":

Informal logic is the attempt to make explicit the principles or standards that are involved in the ordinary everyday activities of establishing and evaluating

claims and using language effectively in the processes of communication and rational persuasion. (3)

Munson sees informal logic as an inquiry concerned with the principles for the appraisal of everyday arguments, thereby giving informal logic a distinct sphere of operation—an important development. Its principles emerge from reflection on the practice.<sup>10</sup> This turns out to be an important, though perhaps insufficiently appreciated, insight in helping to understand the development of informal logic. (I return to this point later.)

# 1977: Johnson and Blair, Logical Self-Defense

This text was among the first generation of informal logic texts, yet there is only one occurrence of the term "informal logic." It occurs in the Preface (xii) when we refer to the mesmerizing grip of formal deductive logic and say that "one consequence has been to relegate informal (or applied) logic—the study of fallacies—to a position of minor importance." At this time we considered informal logic and applied logic to be roughly synonymous. Later we would mark a difference between them, according to which applied logic is more like applied formal logic (Pospesel, 1978), and informal logic is related to arguments in natural language. In this text, we take informal logic to involve the use of fallacies to critique arguments, but we extrapolate from the fallacy approach a theory of evaluation, according to which the premises of an argument must satisfy three criteria: they must be *relevant* to the conclusion, *sufficient* to support it, and *acceptable* to the audience. This set of criteria has proven to be quite influential<sup>11</sup> and may be said to be one prominent feature of this emerging tradition.

Our conception here has integrated a number of features that have emerged thus far: the focus on teaching a logic that would be useful, the appropriation of the fallacies approach (following Kahane), the focus on natural language argument, and the distancing from FDL (following Scriven (1976)).

# 1978: Fogelin, Understanding Arguments: An Informal Logic

Fogelin uses the term "informal logic" as the subtitle of his textbook, *Understanding Arguments* (1978), where he writes:

For certain purposes arguments are best studied as abstract patterns. . . . The task of Logic is to discover the fundamental principles for distinguishing good arguments from bad ones. The study of those general principles that make certain patterns of argument reasonable (or valid) and other patterns of argument unreasonable (invalid) is called formal logic.

A different but complementary way of viewing an argument is to treat it as a particular use of language: arguing is one of the things that we do with words. This approach places stress upon arguing as a linguistic activity...It raises questions of the following kind: What is the place of argument within language as a whole? In a given language, what words or phrases are

characteristic of argument? What task or tasks are arguments supposed to perform? When an approach to arguments has this form, the study is called informal logic. (v-vi)

Fogelin goes on to mention the work of Grice (and Austin) as significant, though his understanding of informal logic appears quite different than Grice's. Fogelin contrasts informal logic with formal logic which is here taken as "the study of those general principles that make certain patterns of argument ... valid." It appears, then, that by "informal logic," Fogelin, focusing on *the activity of arguing*, understands it as the study of the linguistic and *pragmatic* aspects of argument—a view that will resurface—the second phase.

1978: Blair and Johnson, Proceedings of The First International Symposium on Informal Logic (Published in 1980)

Johnson and Blair first made thematic use of the term "informal logic" in the title of the 1978 conference, "First International Symposium on Informal Logic," which we organized at the University of Windsor. We had been using the term "applied logic" to designate our enterprise, but the term "informal logic" recommended itself to us to designate this new approach to the teaching of logic in virtue of a renewed interest in the informal fallacies. Kahane had made informal fallacies the focal point of his revolutionary textbook, which we had used in our classes, and Woods and Walton had already begun their ambitious research project focussing on the informal fallacies. 12 We had found ourselves engaged in teaching students how to evaluate arguments—a task we associated with logic. Following Kahane, we took as our focal point actual arguments about the issues of the day taken from current newspapers and magazines, as contrasted with the fabricated arguments found in most standard logic texts of that time. See, for example, Copi's Introduction to Logic (1954). The logic we were teaching was not formal logic: we made no reference to the logical form of arguments in understanding their structure, and we did not make the standard of validity part of our theory of evaluation, using instead our version of the fallacy approach (as outlined above). Since the fallacies in question were the informal fallacies, the term 'informal logic' seemed appropriate to us.

In the Introduction where we made our first attempt to articulate the denotation of "informal logic," we noted the wide range of meanings associated with the term:

The label "informal logic" means different things to different people. To many it refers to the lists of informal fallacies and various descriptions and classifications of these fallacies... To others it designates the subject matter of a certain sort of introductory logic course which employs various nonformal techniques to try to teach elementary reasoning skills. To still others it has come to mark off a field of logical investigation distinct from formal deductive logic. (Blair and Johnson 1980, ix.)

In our paper, "The Recent Development of Informal Logic" (1980), we avoided any direct statement of what informal logic was but noted two tendencies that seemed to us to be identified with this development. The first was the turn in the direction of actual arguments as contrasted with the artificial types of argument often found in formal logic textbooks. The other was the growing disenchantment with the capacity of formal logic to provide the standards of good argument. It is also evident that (like Munson) we see informal logic as an autonomous area of inquiry which we subdivided into (a) the theory of fallacies and (b) the theory of argument (1980: 610). Also in those same proceedings, a harbinger of future issues can be detected: Woods sounded an important skeptical note in his paper "What is Informal Logic?" His answer to that question is: "Nothing is."

#### Summation

I conclude my treatment of the first phase of development at this point in time for a couple of reasons. The Symposium in 1978 was a coming together of many who helped launch the "informal logic movement." It also witnessed the beginnings of a journal—the *Informal Logic Newsletter*—which in turn figures prominently in the second phase.

In this first phase, the term emerged spontaneously and independently in different places. The uses made by Rescher and Carney & Scheer appear independent of each other; Munson does not appear to have been influenced by either. Our (1977) use was not influenced by our knowledge of prior uses; for we had none when we were writing our text. Yet particularly in these last three usages, some convergence is discernible: viz., "informal logic" designates a new approach to the teaching of logic in which formal logic is de-emphasized. In this phase, it should be noted that there is very little theoretical literature to refer to. (See "A Bibliography of Recent Work in Informal Logic," Blair & Johnson (1980: 163-172).)

# The Second Phase of Development

1984: Finocchiaro, Informal Logic and the Theory of Reasoning

In this important paper, Finocchiaro reflects on the various uses of the term, referring to the "identity crisis of wondering what on earth informal logic is supposed to be". He says that he plans to bypass these difficulties by conceiving informal logic as the theory of reasoning, by which, he says, "I mean the attempt to formulate, to test, to clarify, and to systematize concepts and principles for the interpretation, the evaluation and the sound practice of reasoning" (22). This is a much broader conception of informal logic than has emerged thus far because Finocchiaro takes reasoning rather than argument to be the subject matter. We will see shortly that this conception of informal logic influenced Johnson and Blair's 1987 definition.

# 1986: Copi, Informal Logic

After more than 30 years of publishing introductory and symbolic logic texts, and symbolic types, Copi decided in 1987 to publish an informal logic text. In the Introduction he writes:

Although I have been teaching undergraduate courses in logic since 1939, it was only about a half a dozen years ago [roughly, 1980] that I first taught a course in the subject now known variously as informal logic or critical thinking. (vii)<sup>15</sup>

In speaking of how his text was composed, Copi says:

In no way should either informal logic or introduction to logic be viewed as the preparation or prerequisite for the other. Hence I have not hesitated to incorporate into this informal logic textbook material from the informal part of my older *Introduction to Logic* (viii).

In fact, the chapters here are as follows: Introduction; Chapter 1—Some Uses of Language; Chapter 2—Fallacies; Chapter 3—Definition; Chapter 4—Analogy; Chapter 5—Causal Connection; Chapter 6—Science and Hypothesis. These have been downloaded from his *Introduction to Logic* verbatim. Omitted are the chapters on Deduction and Probability. Thus, on the basis of the contents of this textbook, one might conclude that for Copi informal logic is standard logic *minus* deductive logic and inductive logic/probability theory. This tends to create the impression that the way to create an informal logic text is to start with traditional logic, remove the deductive and inductive logic sections (what hard-nosed philosophers think of the as the real logics) and what you are left with is informal logic. Such an approach might be called "informal logic by subtraction" but the result is similar to what we saw in Carney & Scheer and Rescher; informal logic covers the fallacies and elements of discourse analysis.

# 1986: Goldman, Epistemology and Cognition

We look now to a very different kind of source. In this work, Goldman makes a brief reference to what he calls "informal logic":

It is widely assumed that logic deals with principles of good reasoning. Logic is often characterized as the art of reasoning. Unfortunately, such a billing is a bit of a sham. It isn't that logic courses are not useful for good reasoning; it's just that there are no well-established principles of good reasoning (good cognitive state transitions), and no satisfactory theory of how good reasoning is related to formal logic. In short, there is not a really well-established discipline of informal logic. (82)

By "informal logic," Goldman understands something quite different from any understanding that has turned up thus far. He sees informal logic as developing principles of good reasoning (conceived as cognitive state transitions)—a task that formal logic is not helpful with.<sup>17</sup> It would also clarify the relationship between good reasoning and formal logic.<sup>18</sup> Here informal logic is conceived of as an *adjunct* 

to FDL, though differently from the way that Rescher, and Carney & Sheer conceived it.

# 1987: Johnson and Blair, "The Current State of Informal Logic," 1987

In a paper written for the 1988 World Congress of Philosophy (published in *Informal Logic*), Blair and I put forward, for the first time, a definition of informal logic: viz., "a branch of logic whose task is to develop non-formal standards, criteria, procedures for the analysis, interpretation, evaluation, criticism and construction of argumentation in everyday discourse." This definition reflects what had been our practice, as is evident in the successive editions of *Logical Self-Defense*, and captures what many others were doing in their informal logic texts. One can detect the influence of Finocchiaro (1984) in the reference to "standards, criteria, procedures, interpretation evaluation." Since that time we have repeated the definition in (2000, 2002) and in the latter made one modification: we broaden the focus now to include the sort of argument that occurs not just in everyday discourse but also disciplined inquiry—what Weinstein (1990) calls "stylized discourse." In (2000, 119-120), I explain the sense of "form" at work in our conception.

#### 1987: Govier, Problems in Argument Analysis and Evaluation

Govier is one of the philosophers most associated with the development of informal logic. In (1985) she authored a well received and widely adopted logic text—*A Practical Study of Argument*. About this volume, she writes:

My interest in the subject covered in this book dates from 1978, when I came across several texts in applied, or informal logic, and was interested both by their practicality and by their recommendation for rethinking central philosophical traditions regarding logic and argument. I thought at that time that very fundamental issues were at stake but that the context of textbooks did not provide sufficient opportunities to explore them in depth. This book is an attempt to fill that gap. (ix)

For Govier, informal logic denotes the art of argument evaluation, a task which Govier insists is nonformal in character:

Logic is supposed to be both scientific and practical.... There is a tension in these views of logic. We cannot have it both ways—that logic is entirely formal and yet applies to real argumentation. Either logic is nonformal or it tells us only a small amount of what we need to know and understand and evaluate arguments. (203)

Note that she uses "nonformal" rather than "informal" but her regular reference is to the latter, as is the case in the next passage:

To speak of informal logic is not to contradict one's self but to acknowledge what should be obvious: that the understanding of natural arguments requires substantive knowledge and insights not captured in the axiomatized rules of formal logic. The informal fallacies, historically a central topic for informal logic, involve mistakes in reasoning which are relatively common, but neither

formal nor informally characterizable in any useful way. The fact that an account of informal logic makes it out to be just that does not show that it is imprecise or lacking in rigor. (204)

Thus, for Govier, informal logic is the logic that helps evaluate natural-language arguments—a process requiring substantive knowledge and insights not provided by formal logic. Noteworthy as well is Govier's connection of informal logic with the informal fallacies, and her insistence that the qualities of rigour and precision need not be forfeited when one does informal logic.

#### 1989: Walton, Informal Logic: A Handbook for Critical Argumentation

This work is important because it was the first monograph dealing with informal logic to be published by one of the leading publishing houses—Cambridge University Press. <sup>20</sup> Walton had already established a reputation as one of the leading theoreticians associated with informal logic. His approach here is largely descriptive and discursive. Noting the importance of what he calls "logical semantics", he states that "the other eight chapters are mainly about the pragmatics of argumentation" (ix), since "applying critical rules of good argument to argumentative discourse in controversial issues in natural language is an essentially pragmatic endeavor" (ix). Walton is among the first to associate informal logic with pragmatics<sup>21</sup> and the first to conceive of informal logic as rule-based. Most approaches to informal logic up to this point were criteria-based. He writes: "The job requires many of the skills associated with the humanities...thus the terms informal logic and critical argumentation are well suited to the subject matter of this handbook." Walton states that the "basic requirement of critical argumentation is that any argument that a critic attempts to evaluate must be set out as sympathetically appreciated in the context of dialogue in which the argument occurs" (ix-x). This is a significant shift in how the realm of informal logic is understood. Prior to this, most theorists took the focal point to be the argumentation that occurs in a text written for an audience.<sup>22</sup> Instead Walton here sets the focus in the setting of a dialogue. (One senses here the influence of Hamblin, who in Fallacies criticizes formal logic and winds up endorsing a formal dialectic (Chapter 8.) ) Walton later refers to this as "the dialectical approach" (x), in the question-answer context of an argument and concludes: "Thus generally the theory of informal logic must be based on the concept of question-reply dialogue as a form of interaction between two participants, each representing one side of an argument, on a disputed question" (x). Here then informal logic is presented as a pragmatic undertaking<sup>23</sup> in the setting of a dialogue.

# 1989: Perelman, "Formal Logic and Informal Logic"

I include this entry because of Perelman's importance in the area of argumentation, known for his development of *The New Rhetoric* (1958/1969). Here is his way of contrasting formal and informal logic:

While formal logic is the logic of demonstration, informal logic is that of argumentation. While demonstration is either correct or incorrect and binding in the first case or worthless in the second, arguments are more or less strong, more or less pertinent, more or less convincing. In argumentation, it is not a matter of showing (as it is in demonstration) that an object quality (such as truth) moves from the premises toward the conclusion, but rather it is a matter of showing that one can convince others of the reasonable and acceptable character of a decision, based on what the audience already assumes and based on the theses to which it adheres with sufficient intensity. Persuasive discourse therefore aims at a transfer of adhesion, of a subjective quality which may vary from mind to mind. (11)

The contrast between the logic of demonstration and the logic of argumentation fits well with the emerging view of informal logic as focused on argumentation, although his view of argument is somewhat narrower (a reasonable decision), and the main criterion for premise-adequacy is acceptance, with which many who were doing informal logic would not be happy.

1990: Walton, "What is Reasoning? What is an Argument?"

In this paper, Walton presents a slightly different take on informal logic, based on the contrasting relationship between formal and informal logic. Walton writes:

Formal logic has to do with the forms of argument (syntax) and truth values semantics)....Informal logic (or more broadly, argumentation, as a field) has to do with the uses of argumentation in a context of dialogue, an essentially pragmatic undertaking. (418-419)

Here he invokes the same ideas as in 1989, but discussing the relationship between formal and informal logic, Walton writes:

Hence the strongly opposed current distinction between informal and formal logic is really an illusion, to a great extent. It is better to distinguish between the syntactic/semantic study of reasoning, on the one hand, and the pragmatic study of reasoning in arguments on the other hand. The two studies, if they are to be useful to serve the primary goal of logic, should be regarded as inherently interdependent, and not opposed, as the current conventional wisdom seems to have it. (419)

When properly understood, these two logics are not in competition but rather are complementary. (The claim that they are interdependent needs elaboration.) To spell out their complementary nature, Walton relies on the traditional distinction between syntax, semantic and pragmatic, assigning to formal logic the syntactical and semantical aspects of the study of argumentation, and to informal logic the pragmatic aspects. Hitherto there had been an underlying current that saw formal logic as antithetical to informal logic (see Scriven, 1980; Johnson and Blair, 1980).

# 1990: Hansen, An Informal Logic Bibliography

Hansen's bibliography (published in *Informal Logic*) contains over 900 entries from journals in which work pertinent to informal logic was being published. The index consists of 24 categories under which the entries are distributed: various fallacies, argument evaluation, argument interpretation (the principle of charity), argumentation theory, arguments—their nature and analysis; bibliographies; critical thinking; deduction/induction/conduction; dialogic, fallacy theory, formal and informal logic, histories, etc; inference norms; informal logic and critical thinking; unexpressed premises (assumptions), pedagogy; relevance; the rhetorical dimension. These categories well reflect the sorts of issues and concerns that we have seen developing under the rubric of "informal logic."

# 1995: The Oxford Companion to Philosophy, Tully<sup>24</sup>

Informal logic examines the nature and function of arguments in natural language, stressing the craft rather than the formal theory of reasoning. It supplements [emphasis added] the account of simple and compound statements offered by formal logic and ... widens the scope to include inductive as well as deductive patterns of inference. Informal logic's own account of arguments begins with assertion—whose real meaning in natural language is largely ignored by formal logic. Because informal logic sees assertion and argument as woven into the fabric of discourse, the threads it traces are extremely varied: imbedded but possibly incomplete patterns of deductive and non-deductive inference, hidden assumptions, conversational implications, vagueness, rhetorical techniques of persuasions, and, of course, fallacies. Such topics though important for understanding arguments in natural language, lead it from the concerns of formal logic. That informal logic lacks the precision and elegance of a formal theory is hardly surprising, therefore, but it probably comes as close as any enterprise ever will to being a science of argumentation.

In this account, Tully sees informal logic as focused on arguments in natural language—a familiar enough theme. His list of its tasks lines up with what we have seen thus far, with the exception that he introduces Gricean "conversational implication." Informal logic is again pictured as a supplement that gives attention to natural language and the fabric of discourse and makes allowance for vagueness, assumptions and rhetorical devices. He stresses both the craft of informal logic and its inability to attain the precision and elegance of formal logic.

# 1997: Brinton and Walton, Historical Foundations of Informal Logic

This book is the first attempt to write a history of informal logic, about which the authors say:

Informal logic has yet to come together as a clearly defined discipline, one organized around some well-defined and agreed upon systematic techniques that have a definite structure and that can be decisively applied by users.

Nothing analogous to the great flowering of formal logic of the past hundred years has occurred or appears quite ready to occur in informal logic.<sup>25</sup> (9)

Walton and Brinton stress informal logic's lack of definition and go on to cite "the diversity of thinking" about the issues and problems that fall under its study. They cite as a reason that informal logic will not attain the status of formal logic that it is a practical subject that requires the interpretation of natural language argumentative discourse (9).

#### Summation

We have seen that there are two settings in which the term "informal logic" comes to the fore. Historically first but less developed is the setting in which informal logic is associated in some way with philosophical analysis (Ryle, Strawson, Grice). Here informal logic is *contrasted* with formal logic for the purpose of helping clarify the nature of philosophy, or philosophical analysis. The second setting is that in which informal logic is contrasted with formal logic for the purposes of developing *an alternative approach to (the teaching of) logic*, whether these are freestanding or incorporated within a more comprehensive treatment. Here we find two subtypes. In the first, informal logic is construed as a supplement to formal logic (e.g., Carney & Sheer, Goldman, *The Oxford Companion*). In the second, informal logic is conceived as a distinct and autonomous inquiry (e.g., Munson, Johnson and Blair, Govier, Walton.) The two subtypes seem independent.

It is worth noting that there is nothing like a widely cited definition, each author appearing to approach the task from his or her own vantage point and background of experience, without feeling the need to relate his/her definition to that of others. Yet for all that, there is a kind of rough convergence—as I will attempt to exhibit below.

# 3. Possible explanation of this range

I suspect the main reason for this range is that the term does not emerge from traditional logical inquiry with any fixed meaning; there is no paradigm<sup>26</sup> to which it clearly and obviously refers, so its meaning is open-ended. The term functions, as I said before, as a fluid designator—one to which authors feel comfortable attaching their own sense. In both settings, however, the term makes implicit reference to formal logic—which does possess a clear meaning and a well-established presence. This presence provides the kernel of the explanation of how the term acquires its range.

Formal deductive logic, particularly in the form of mathematical logic, emerged at the end of the 19<sup>th</sup> century as part of an impressive attempt to settle pressing issues in the foundations of mathematics. In the 20<sup>th</sup> century, logic became enmeshed in the philosophical program of "analytic philosophy" in many ways. See, for example, Russell's deployment of it in *The Philosophy of Logical Atomism*, (1918). As we have seen, the term "informal logic" emerged in two settings (sometimes in

philosophy, sometimes in logic) to register dissatisfaction with the analytic program for philosophy—a crucial component of which was its appropriation of formal deductive logic to provide tools for philosophical analysis.<sup>27</sup>

Thus, part of the explanation for the range of meaning stems from the negating force of the "in-" which may have any of several focal points (which would in turn help to explain the range):

- In the first setting, it signals a distancing from the reigning notion of the nature of philosophical analysis; i.e., there are limits to formal analysis (Strawson, Ryle, Grice);
- In the second setting, it signals a move in logic which may take any of a number of forms:

It may be seen as a distancing from *the formalizing tendency*, e.g., Johnson and Blair, Govier, Walton; or,

It may be seen as a distancing from the *deductivism* associated with FDL, e.g. Johnson and Blair, Govier, Fogelin; or,

It may be seen as signaling a switch in the focus of logical theory from syntax and semantics to *pragmatics*, e.g., Walton, Fogelin; or,

It may be seen as a turn toward seeing *argument in a real-life setting* as opposed to the artificiality of the examples associated with FDL, e.g., Munson, Johnson and Blair, Govier.

This distancing from formal logic—stemming as it does from various sources—helps explain the range of meaning we have encountered, as different authors chose different points of focus. Yet the identity of informal logic does not reside purely in negating, nor can an understanding of it emerge solely from the various attempts to explain its meaning. An equally appropriate way to obtain a clearer understanding of what "informal logic" means will become clearer if we focus attention on its agenda, on what it does.

# 4. A closer look at the informal logic approach

We have seen that in North America the term "informal logic" came to be associated with a new approach to teaching introductory logic courses in university settings. A sense of this was palpable in 1978 at First International Symposium on Informal Logic. And it was represented in what we called the New Wave tradition of logic textbooks. At the same time, informal logic comes to be seen as an approach that takes aim at argumentation in natural language, and sees argument as an important focus for philosophical reflection (Govier). The result is the emergence of the theory of argument (like theory of knowledge) and a developing theoretical literature. Because it clearly refers to a variety of quite different approaches, the term cannot be said to designate anything like a school.

A bit more on each of these topics may provide further clarity and perspective.

In the first instance: a pedagogical revolution

Historically, informal logic emerged as a revolution, or change, in how undergraduate logic courses were taught. I well remember reading a prepublication version of the Preface to Howard Kahane's *Logic and Contemporary Rhetoric* that contained the following statement:

Today's students demand a marriage of theory and practice. That is why so many of them judge introductory courses on logic, fallacy, and even rhetoric not relevant to their interests.

In class a few years back, while I was going over the (to me) fascinating intricacies of the predicate logic quantifier rules, a student asked in disgust how anything he'd learned all semester long had any bearing whatever on President Johnson's decision to escalate again in Vietnam. I mumbled something about bad logic on Johnson's part, and then stated that *Introduction to Logic* was not that kind of course. His reply was to ask what courses did take up such matters, and I had to admit that so far as I knew none did. He wanted what most students today want, a course relevant to everyday reasoning, a course relevant to the arguments they hear and read about race, pollution, poverty, sex, atomic warfare, the population explosion, and all the other problems faced by the human race in the second half of the twentieth century. (vii)

In line with this realization which was dawning (independently) on many other logic instructors, the 70s witnessed an explosion of texts that reflected this new approach to teaching logic. In our 1980 paper, we referred to this trend as a "geist." We found this new approach manifested in such texts as Kahane, *Logic and Contemporary Rhetoric*, 1970; Stephen Thomas, *Practical Reasoning in Natural Language*, 1972; Scriven, *Reasoning*, 1976; Munson, *The Way of Words*, 1976; Johnson and Blair, *Logical Self-Defense*, 1977; Fogelin, *Understanding Arguments*, 1978.<sup>28</sup>

# Defining themes of the new approach

This new approach to teaching logic was defined by certain themes. Here I articulate and itemize only what I take to be the main ones. (For fuller discussion, see Johnson and Blair 1996, 2002).

- (i) The dissatisfaction with FDL as a pedagogical approach to teaching students how to analyze and evaluate arguments (Johnson and Blair, Scriven);
- (ii) The adoption of a different focus on argument that included defining "argument" differently and seeing argument in its habitat, however that is to be characterized: ordinary argument, mundane argument, everyday argument, arguments in use) (Munson, Johnson and Blair, Fogelin, Scriven, Govier);

- (iii) The search for ways of understanding and displaying the structure of argument not dependent on the notion of logical form; this search is coupled with a dissatisfaction with the deductive-inductive distinction that is associated with the positivist research program (e.g., Carnap);
- (iv) The desire to develop a richer approach to argument evaluation. There is general agreement that soundness—that condition that is satisfied when an argument has all true premises and is valid—is not the proper ideal. This leads to the discussion of a better set of criteria and also to taking the fallacies seriously. This desire leads gradually to the distinction between premise-adequacy and inferential-adequacy;<sup>29</sup>
- (v) The appreciation of the importance of argument construction: If one is to teach students about real arguments, then it is not enough to focus only on evaluation; one must include the task of argument construction—an emphasis taken from colleagues in rhetoric;
- (vi) The broadening of the scope: If one is to teach students about how to handle attempts at persuasion one must broaden one's scope equipping students to handle everyday persuasion. Kahane's text included chapters on advertising and textbooks; Johnson and Blair include chapters on how to obtain information from news media and how to deal with advertising;
- (vii) The connection with critical thinking: One other point worth mentioning is the connection between informal logic and critical thinking. As it developed this new approach to teaching university and college undergraduates about argument, the informal logic "movement" became strongly associated with what was called the Thinking Skills Movement which was targeting the way in which thinking skills were being taught (or not) at all levels, a concern reflected in such issues as "Why Johnny Can't Reason" and "The Fourth R—Reasoning." Of particular importance was the connection between informal logic and the critical thinking movement, which happened as follows. In 1981, Blair, Johnson and Scriven all attended the Conference on Critical Thinking and Moral Critique hosted by Richard Paul. It became clear to those of us working in informal logic that there were kindred spirits in this movement. From then through the mid-90s, the annual Sonoma Critical Thinking Conference served as an important gathering place for the exchange and development of ideas.<sup>30</sup>

#### In the second instance: theoretical developments

The movement also began to develop a theoretical literature, which grew out of the attempt to pursue the above interests.

One way to track the development of the theoretical dimension is to canvas the *Informal Logic Newsletter*, where the very first issue to emerge was the adequacy of the inductive-deductive distinction: the questioning of that in turn leads to *the search for the third way*; that is, to find a mode of inferential connection neither inductive nor deductive: Blair and Johnson (1980). Here I would mention Govier

(1987)—conductive inference, Scriven (1987)—probative reasoning; Walton (1995)—presumptive reasoning.<sup>31</sup> Some (Pinto, 2001; Blair, 2007) regard this as the most salient task associated with informal logic.<sup>32</sup>

A second issue to emerge in the theoretical literature was that of the role of interpretation in argument analysis. Informal logicians paid a great deal of attention to the task of how to identify missing premises in argument—Scriven (1976), Johnson and Blair (1980)—for two reasons. First, in the analysis of real-life arguments (as contrasted with the artificial examples that populate formal logic textbooks), this often turns out to be an important step. Second, if one parts company with FDL, then this task is more complex. Here is how Scriven frames the issue:

I sometimes think that one can best spotlight the gap between formal logic and real reasoning by pointing out that almost every real argument involves assumptions, but that, as far as I know, there has never been an even moderately successful attempt to analyse the concept of an assumption.... Without such an analysis, effective criticism of an argument, or an arguer, is hopelessly crippled. (xvi)

This problem in turn led to the awareness of and interest in *the principle of charity*—the question of how to formulate and how to justify the choice of a missing premise—a problem that, so far as I know, had never been taken in hand by previous generations of logicians.

A third issue was how to develop a better understanding of fallacy. This work had already begun in earnest by Walton and Woods who throughout the 70s produced a series of articles in various philosophical journals. These may be seen as a response to the gauntlet thrown down by Hamblin (1970). Their work demonstrated that fallacy theory was a fruitful area of inquiry.

Some important landmarks in the developing theoretical literature are the publication of Trudy Govier, *Problems in Argument Analysis and Evaluation* (1987) Douglas Walton, *Informal Logic* (1989); Alec Fisher, *The Logic of Real Arguments* (1989), Hans V. Hansen, "An Informal Logic Bibliography" (1990), James Freeman, *Dialectics and the Macrostructure of Argument* (1991); Hans V. Hansen and Robert C. Pinto, *Fallacies* (1995), Ralph H. Johnson, *The Rise of Informal Logic* (1996).<sup>33</sup>

Two points need to be made about this pattern of development. First, in the informal logic movement, practice gives rise to theory, along the lines suggested by Munson (p. 251). It sets the stage for theoretical developments:

With one eye riveted on our argumentative practices, informal logic began the process of attempting to develop a better theory. In this way informal logic illustrates a pattern of development which is the very reverse of that proposed by Massey.... In informal logic, the theory develops out of the practice. The significance of informal logic lies in part in its attempt to bridge the gap from the side of practice rather than theory, to build theory out of practice. (Johnson, 2000)

And here we have the final piece of the puzzle to explain the heterogeneity of conceptions of informal logic. For how one would conceive of informal logic depended to some degree on which aspect of argumentative practice the individual author thought required attention.

Second, in this developing theoretical literature, one can see more clearly some important features of informal logic that may not be so evident in the pedagogical strand.

### (A) Informal logic in relationship to other disciplines and initiatives

Formal logic: Though informal logic in the first instance distances itself from formal logic, yet as we have seen there is developing awareness of a relationship between the two—Walton (1990). Johnson (1999) contrasts informal logic as concerned with argument with formal logic as concerned with implication/entailment.

Critical Thinking: Since the 80s, informal logic has been partnered, in the minds of many, with critical thinking and indeed some seem to equate the two, though it is clear that they are different, though related. Critical thinking is, in the first instance, a kind of activity, or mental practice, whereas informal logic is a kind of inquiry or theory. Critical thinking also designates an educational ideal that emerged with great force in the 80s in North America as part of an ongoing critique of education as regards the thinking skills not being taught. The precise definition of "critical thinking" is a subject of much dispute (Johnson, 1992) but all will agree that in order to think critically one must be able to process arguments. That is where informal logic comes into play. While much of critical thinking will focus on arguments (because one has to grapple with reasons for and reasons against) and hence require skills of argumentation, critical thinking requires additional abilities not supplied by informal logic: the ability to obtain and assess information, to clarify meaning. Also many believe that critical thinking requires certain dispositions (Ennis, 1987). It was also tempting for many to conflate critical thinking with problem solving. I take these issues to be part of the Network Problem (Johnson, 2000) and to require for their proper settlement a theory of reasoning.

*Epistemology:* Historically, many of the philosophers who took an interest in informal logic did so from an epistemological interest and background. See Weinstein (1990) Pinto (1994), Siegel (1994). There are obvious ways in which the two are related: the notion of justification, the interest in rationality, the truth issue; but there are ways in which they remain and must remain different (Johnson and Blair, 1996)—notwithstanding the views of those who argue that informal logic is applied epistemology (Weinstein, 1994).

Rhetoric and Communication Studies: Rhetoric has been concerned with argumentation particularly from the perspective of persuasion—which is of special concern to informal logic. Likewise the move away from truth and toward acceptability as a requirement for premise adequacy leads to greater attention paid to the role of the audience—as does the interest in argument construction mentioned above.

*Linguistics*: Argumentation is or may be viewed as a speech act, as, for example, Pragma-Dialectics views it; or as a form of linguistic activity (Grize, 1982).

Argumentation Theory: Informal logic also became strongly associated with an initiative often referred to as Argumentation Theory. One of the first indicators of this area of inquiry was the emergence of the Pragma-dialectical approach to argumentation developed by two Dutch linguists—Frans van Eemeren and Rob Grootendorst. It became clear that informal logic was part of a worldwide network of researchers, all interested in the study of argumentation—an inquiry known as Argumentation Theory. The conferences that they began in Amsterdam in 1986 and that have been held every four years since have functioned as a focal point for those interested in the study of argumentation. Scholars from all over the world with various backgrounds and approaches to the study of argumentation gather to exchange views.

Computer Science: There is now evidence of contact between informal logic and computer science, mediated by argumentation theory and dialogue logic. Informal logic drives much of argumentation theory, and argumentation is now a subject that computer scientists have taken in hand. See Argumentation Machines: New Frontiers in Argument and Computation, Chris Reed and Timothy Norman (Eds.) (2004). A similar tie connects informal logic to initiatives in the logic of practical reasoning research program. In addition to the already-mentioned Handbook of the Logic of Argument and Inference, see also the multi-volume work of Gabbay and Woods, under the generic title: A Practical Logic of Cognitive Systems (2003, 2005, and forthcoming).

Thus one of the important features of informal logic has been the number of cross-fertilizations it has achieved (and benefited from) with other disciplines.<sup>34</sup>

# (B) Informal logic as positioned between formal logic and rhetoric

One of the merits, I believe, of the informal logic approach to argument has been its positioning of itself between the (excessively) abstract universalist approach taken in FDL (a theory where one size fits all), and the more contextualized and nuanced approaches found in rhetoric and speech communication—which are highly context sensitive. In my account, informal logic retains some of the universalist tendencies of formal logic; it aims to give an account of argument worth that is applicable across the board. At the same time, informal logic is also more open to the need to pay attention to the details provided by context that is typical of rhetorical approaches. It does not share the ancient philosophical distrust for rhetoric discussed by Tindale (this issue), though the attempt to strike a balance is something of a tightrope act.

# (C) Informal logic as pragmatic

Another filter through which to view the development of informal logic is the traditional distinction (due to Morris) between syntax (syntactics), semantics, and pragmatics. Syntax is the study of the relation of signs to other signs; semantics is the study of signs to the things they represent; and pragmatics is the study of the relations of signs to their users (*The Oxford Companion*, 820). With pragmatics, agency is back in the picture.<sup>35</sup>

It is clear that informal logic is closely related to pragmatics. The tasks of reconstructing an argument, of supplying missing premises, of clarifying meaning—all of these tasks fall within the domain of pragmatics—rather than syntax or semantics. Scriven (1980) sounded this note in his paper for the First International Symposium when he said: "It has long been obvious that the concept of explanation, in science or elsewhere, is neither syntactic nor semantic but essentially pragmatic (to use a traditional set of terms that are themselves somewhat contaminated by formalism)" (p.150). Thus, informal logic lines up well with the most recent stage in the ongoing development of logic in this century in which pragmatics emerges as a key player.

#### 5. Conclusion

In a sense, this paper has been an exercise in intellectual history, an attempt to understand how a specific term—"informal logic"—came to be interpreted in so many different ways. I hope my attempt to explain the many different meanings, how they emerged and how they are related has been helpful. This paper is also, to some degree, an account of a movement that developed outside the mainstream of philosophy, 36 whose origins lie in a desire to make logic useful (echoing Dewey) and which developed into an important challenge to conventional views about argument. Given the emergence of informal logic and its importance, it is difficult to understand its failure to achieve deeper penetration of the philosophical establishment (Woods, 2000). But that is a matter for another paper.

#### **Notes**

<sup>1</sup> This paper relies on earlier attempts by Johnson and Blair to chart the history of informal logic, especially Chapter VIII in *The Handbook of the Logic of Argument and Inference* (2002). In addition, I want to thank Tony Blair, Chris Tindale, Hans V. Hansen and Bob Pinto for their comments on earlier drafts. Thanks are due also to two referees for this journal for their comments, as well as to Michael Scriven, Ronald Munson, Takuzo Konishi, Thomas Fischer, Leo Groarke and Lenore Langsdorf. John Woods made extensive and helpful comments and suggestions from which I hope to have benefited. Finally, I want to thank my student assistant, Michael Baumtrog—the Bommer—for his helpful comments and able assistance.

<sup>&</sup>lt;sup>2</sup> This is Hansen's term (private conversation).

<sup>&</sup>lt;sup>3</sup> My focus here will be the term "informal logic" but I will occasionally refer to the referent—informal logic.

- <sup>4</sup> I set to one side here what I think of as eccentric uses—like this one: "Culture is here taken to refer to what Clifford Gertz has described as 'the informal logic of actual life' (Vincent, 1989, p. 7.).
- <sup>5</sup> The existence of informal logic has been questioned (Johnson, 2000,252 ff.), just as has been the case with inductive logic.
- <sup>6</sup>A Google Search conducted in January 2007 showed 4,190,000 hits for <u>informal logic</u>; 17,400,000 for *formal logic*; 4,550,000 for *fuzzy logic*; 471,000 for <u>epistemic logic</u>.
- <sup>7</sup> In fact Grice holds that both the formalist and the informalist are guilty of an assumption that he is going to challenge.
- <sup>8</sup> The treatment that follows on pp. 249-53 is largely that from Johnson and Blair (2002), pp 28ff.
  <sup>9</sup> The abbreviation "FDL" stands for "formal, deductive logic." I introduced this acronym in (1986) for the purposes of contrasting informal logic's approach to argument with that taken by those favoring a formal approach in which the ideal is soundness. Subsequently I came to understand that the focus of my complaint was not formal deductive logic itself but rather textbooks in which FDL had in effect been downloaded and refurbished and made to function as a theory of argument, which in my view, it was never intended to do. To explain how this happened would take us too far a field. The point here is that some derision was intended in coining "FDL" reflecting perhaps the mentality of many of us in those early days. My considered view of the matter is found in (1999)
- studied the history of science that all concepts and definition he offered: "I know from having studied the history of science that all concepts and definitions have antecedents, but I made up the definition of "informal logic" without knowingly drawing on any other definition.... The phrase was not at that time in currency, and people I knew about who wrote about the topics usually did so in large books devoted to syllogistic logic and rhetoric. I was trained as a philosopher of science, and I modeled my definition on what I believed to be the major activity of philosophers of science, seen from the point of view of logical empiricism—to understand the logic and language of science by making explicit rules underlying practice. That's why you see in my definition the reference to rules implicit in practice. I was concerned to convey to readers the idea that informal logic wasn't a set of arbitrary conventions imposed by philosophers, but was, rather, an analysis (or reflection) of what they did already without necessarily being aware of it." (private correspondence, included here with the author's permission, emphasis added)
- <sup>11</sup> Govier (1999) notes that "one common account of argument cogency is that of acceptability, relevance or sufficiency (or good grounds), which may be abbreviated ARG" (98). In her endnote, she says: "The ARG abbreviation is my own and I use it in *A Practical Study of Argument*. The original account of acceptability, relevance and sufficiency was put forward by Johnson and Blair (1983)" (103). In fact, this account was first put forward in Johnson and Blair (1977) and appears later in a revised form in Govier (1985) in which she changes sufficiency to adequacy. Others who have adopted some form of the RSA account of criteria for the evaluation of argument include: Damer (1987), Freeman (1988), Little, Groarke and Tindale (1989), Barry (1992) and Seech (1992). This account of argument evaluation may with some justice be said to be one of the identifying traits of informal logic.
- <sup>12</sup> Most of these articles are collected in Woods & Walton (2007). The fallacies are also a major focus of their textbook, *Argument: The Logic of the Fallacies* (1982).
- <sup>13</sup> This treatment based on Johnson & Blair (2002). However, I would frame the contrast here differently now: the theory of fallacy is not separate from the theory of argument, but rather a part of it. It is part of the theory of evaluation. See Johnson (2000: 40-41).
- <sup>14</sup> Woods' views have evolved over time. If his position in 1980 was that nothing is informal logic, his position in 2004 is that the applicability of a formal logic to natural language argumentation is lodged in a prior logic which is (rightly) irreducibly informal. See Chapters 2 and 3 of (2004a).
- <sup>15</sup> Note the disjunctive pairing. I believe that Copi was introduced to informal logic in the 1980s

as a result of the critical thinking initiative in California (spearheaded by Richard Paul at Sonoma State University) where informal logic and critical thinking came together. Thus Copi tends to link the two-a linkage encouraged by the existence of the Association for Informal Logic and Critical Thinking (AILACT), born in 1983 at the Second International Symposium on Informal Logic. <sup>16</sup> See Wayne Grennan's review of Copi's *Informal Logic* in IL 9, 50-51, which makes a similar

point.

<sup>17</sup> Harman takes a view similar to this in his (1986).

<sup>18</sup> I have no disagreement with Goldman on the importance of these tasks. The difference between us is that I see the task of developing principles of good reasoning as the generic task of logic—not of informal logic specifically—and the task of clarifying the relationship between good reasoning and formal logic as the task of the theory of reasoning—rather than one I would relegate to informal logic which I take to be the logic of argument (as distinguished from both inference and implication). See 2000, 24-25, 92-94.

<sup>19</sup> As has been noted, one problem with this definition is its apparent circularity—defining "informal" with "non-formal." To my mind, this is really a less serious problem than the failure to clarify the sense of "formal" negated by the "in." See my (2000, 119-20) and Johnson and Blair (2002, 358-59) for an attempt to do that. The evolution from the (1980) articulation is partly the result of the influence of Finocchiaro (1984)—though he takes informal logic to be a theory of reasoning, whereas we take it to be a theory of argument.

<sup>20</sup> I do not mean to ignore Govier's *Problems in Argument Analysis and Evaluation* (1987). But this is really a collection of individual papers published on different occasions rather than a monograph.

<sup>21</sup> The idea is there in Fogelin but not thematically developed. Walton also had sounded this note

<sup>22</sup> Scriven (1976), Johnson and Blair (1977), Fogelin (1978) Govier (1985), Fisher (1988).

<sup>23</sup> In Manifest Rationality, I addressed how informal logic fares with respect to the semantics/ syntax/pragmatics distinction. See pp. 368-69.

<sup>24</sup> I want to thank Takuzo Konishi for calling this text to my attention. I omit the account in *The* Cambridge Dictionary of Philosophy because it was written by Walton, whose views have been sufficiently covered.

<sup>25</sup> In a subsequent paper I intend to address the issue of the lack of development in informal logic.

<sup>26</sup> I mean the term in its Kuhnian sense 1962: (10ff).

<sup>27</sup> This is not to ignore inductive logic (a la Carnap, for example), but I submit that the ideal of argument for most of those engaged in the positivist research program is that of soundness.

<sup>28</sup> An aside about the textbook habitat: Weinstein criticized this development (1993), suggesting that the authors of these texts were motivated chiefly by financial concerns—"they're only in it for the money." But there are other and better explanations for the proliferation of texts: the pedagogical thrust of the initiative combined with the lack of an appropriate journal for publishing new materials made textbooks the scene of some important conceptual innovations. And it says something about the informal logic initiative that Copi—the most successful textbook author in logic textbook history—decided to publish a textbook by that name—Informal Logic—in 1986. Finally, it is worth noting that some of the most illustrious philosophers in the 20th have published textbooks. To name just a few: Quine (1948), Rescher (1964), Scriven (1976), Toulmin (1979). I doubt that these philosophers were motivated by the idea of making money.

<sup>29</sup> The present author would add dialectical adequacy to the list and has registered his reservations about the idea of inferential adequacy.

<sup>30</sup> Important here was the birth of AILACT (The Association for Informal Logic and Critical Thinking) at the Second International Symposium on Informal Logic (Windsor, 1983), as well as the conferences hosted by John Hoaglund in the mid-80s at Christopher Newport College in

#### Virginia.

- <sup>31</sup> Blair has an extensive discussion of this matter in his paper, "The 'logic' of informal logic" delivered at the conference of the Ontario Society for the Study of Argumentation, June 2007.
- <sup>32</sup> I have expressed my concerns about this way of understanding the structure of argument (2000,164-67).
- <sup>33</sup> In this account, I have purposely omitted works that (I believe) had a major influence on informal logic but which would not be considered part of that literature: Toulmin (1958), Perelman (1958), Rescher (1976), Rescher (1977), Johnstone Jr. (1978) to mention but a few.
- <sup>34</sup> I am grateful to John Woods for calling this point to my attention at the right moment.
- <sup>35</sup> Again I must express gratitude to John Woods for his very helpful comments and advice on this matter.
- <sup>36</sup> I omit from this account the active opposition that many of us encountered from colleagues in philosophy. I recall well the reaction of one philosopher who, when we were being introduced and I mentioned my work in informal logic, replied, disdainfully: "Oh, yes, casual logic..."

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