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Problems in Systematic Analysis of “Full-Length” Arguments, and Some Possible Contributions from Contemporary Composition Theory

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Title: Problems in Systematic Analysis of “Full-Length” Arguments, and Some Possible Contributions from Contemporary Composition Theory

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In literary studies and composition/rhetoric, Father Walter Ong is famous for writing “The Writer’s Audience is Always a Fiction.” It is equally true that a reader’s writer is also a fiction—a persona whose views must be inferred only through the written signs he or she has left on a page. Plato made this point in the *Phaedrus* when he had Socrates criticize both painting and writing: “The productions of painting look like living beings, but if you ask them a question they maintain a solemn silence. The same holds true of written words; you might suppose that they understand what they are saying, but if you ask them what they mean by anything they simply return the same answer over and over again” (1973, 97). The result is that any reader is an active interpreter of any text, not merely decoding what is on the page but actively supplying background knowledge, context, connections, even world views. In fact, the idea that readers construct meaning from written texts is probably the central trope among modern reading theorists (see Smith [1994]; McCormick [1994]).

As a writing specialist, who teaches argumentation, my perspective and central concerns about argument contrast with those of a pragma-dialectical theorist, who take argument to be simultaneous, interactive critical dialogue and with Michael Gilbert’s concern with how individuals mediate disagreement interactively.

In composition classes, I am concerned with teaching students both how to produce their own texts and how to interpret and assess texts of other writers, fairly and accurately, texts that are “dumb,” that will not answer with any additional information no matter how many questions are put to them. I am primarily concerned with texts that I describe as “full-length,” generally 800 words and up. That focus from my work in composition carried over into my accidental reincarnation as a logic teacher, when I inherited my university’s Introduction to Logic course in the summer of 1983. Originally the course combined introductory formal logic with non-formal analysis, but I cut the formal logic when we revised our General Studies Program over a decade ago. I am persuaded of the value of teaching non-formal analysis and assessment, but find little relevance of syllogisms and propositional formalization to everyday discourse.

The ultimate task in my logic course is for students to write a thorough analysis and evaluation of a full-length discourse, perhaps a text concerning a controversy in their major field, or sometimes a text I suggest on a public issue. I write this paper because I have become increasingly dissatisfied with what is normally the student writer’s first main step, an attempt to create a portrait of the article’s main argument structure, what Johnson and Blair called its macrostructure (1983, 211).

The Problem

For several years, I have been using David Kelley’s *The Art of Reasoning* (1998) as the main text. Like many other logic texts (Govier 1997; Copi and Cohen 1998; Hurley 2000; Johnson and Blair 1983), it presents students with a system for visualizing arguments that involves

distinguishing propositions with numbers and then connecting the numbers to each other by arrows moving downward to the main conclusion. Kelley includes a full chapter on how to create appropriate diagrams (1998, Chapter 5 “Basic Argument Analysis” 36 pages long). At the beginning he says confidently, “we use a diagramming method that employs just two symbols but is flexible enough to handle arguments of any complexity” (1998, 93). He is in error on both counts. He soon adds a third symbol to represent an unstated premise and a fourth to distinguish conjoint premises. But then he acknowledges that these diagrams, using every relevant proposition, cannot be used on long texts (anything over about 10 propositions I suggest). So in a later chapter (1998, Chapter 7 “Advanced Argument Analysis” 23 pages), he returns to the topic and explains that to handle longer arguments, students must “distill” the writer’s material or boil it down to its essence—and then draw a diagram, not for the original article, but for the summary. Although I feel reasonably capable of doing that myself, even with articles ranging up to 20 pages, this move is problematic for my students, while at the same time being basic to their entire analysis and evaluation.

In my frustration, I have examined other textbooks plus works of scholarship, searching for helpful materials, and I have concluded that, pedagogically, informal logic has dealt primarily with the microstructure of texts but has not done a satisfactory job with their macrostructure. In the remaining pages I will first survey and critique five approaches to schematizing arguments; then I will discuss the problematics of writing summaries, drawing on reading theory and recent developments in composition argument texts. I forewarn you that I do *not* have a satisfactory solution for the problem I pose. But I will conclude with a section about two features of rhetorical theory that might have something to offer in connection with macrostructural analysis.

Systems of Macroanalysis and Their Limitations

I have chosen the word “limitations” deliberately. I do not mean to fault the systems I am going to discuss. They are not “defective” and often do a good job of what they were designed to do. But they are “limited” by their nature in ways that I believe make them unsatisfactory when it comes to dealing with full-length written discourse presenting a viewpoint and arguing for it. The five systems I have identified are (1) standard form analysis, (2) Toulmin layout analysis, (3) pragma-dialectal analysis, (4) main path/faulty path analysis and (5) tree diagramming, both direct and indirect.

1. Standard Form Layout

Readers will all be familiar with directions to students to lay an argument out in “standard form,” by writing each premise in a list, then finishing with the argument conclusion. Ray Perkins, Jr. uses this simple standard layout to represent one of Rush Limbaugh’s arguments:

The failure rate for condoms is around 17 percent.

Liberals (who promote condoms as protection from AIDS) are sentencing kids to death.

‡The liberal claim that condoms protect from AIDS is a lie. (1995, 120)

In a more sophisticated version of “standard form,” each premise is numbered, and a proposition that serves as an intermediate conclusion has the numbers of the premises that support it written to its right. Conway and Munson (1997) use the following text, which they say is “adapted” from a syndicated article by James Kilpatrick (June 14, 1987), as an illustration:

There is a bill before Congress, S 143, that would allow diacetylmorphine, a form of heroin, to be dispensed for the relief of intractable pain due to cancer. This bill should be passed.

The case for passing the bill cannot be denied. Diacetylmorphine (DAM) is the one drug that would best relieve the agony many cancer patients suffer. And whatever drug would best prevent this agony should be available. For such agony often leads to a severe deterioration in the quality of life of the patient and heartbreak for the patient's family.

There is one objection to this bill that seems especially callous. This is that a cancer patient might unexpectedly survive and turn out to be addicted. There would be time to worry about addiction if the terminally ill patient surprised his doctors.

Three times I have seen loved ones die of cancer, and two of them were in such pain they could neither weep nor scream. Injections of heroin might have let them go in relative peace. It's not a great deal to ask.

The passage is only 176 words and 12 sentences long, so it actually doesn't qualify as a full-length discourse (because the textbook authors have already simplified a 700-word column to aid the student reader: more about the column below). Conway and Munson's standard form analysis looks like this:

- 1) DAM is the one drug that would best relieve the agony many terminal cancer patients suffer.
- 2) Such agony often leads to a severe deterioration in the quality of life of the patient and heartbreak for the patient's family.
- 3) Whatever drug would best relieve this agony should be made available. 2
- 4) DAM should be made available. 1,3
- 5) The objection that a cancer patient might unexpectedly survive is callous.
- 6) There would be time to worry about addiction if a patient unexpectedly survived.
- 7) This is not a serious objection to the conclusion in 4. 5,6 (1997, 26)

Two features are worth noting. First, Conway and Munson have actually included a counter argument (5, 6 → 7) and placed it *below* the conclusion in their layout. They indicate that 5-7 could be moved upward before the conclusion with appropriate renumbering. Being able to include counter arguments is often a problem for analytical schemes, so I see this as a virtue. Second, the standardization takes 99 words and 7 propositions, so it is more than half as long as the "original." Obviously if one were working with a text of 800 words and perhaps 40 sentences, a standard form layout based directly on the text would not be of much help. But a standard form layout using only, let us say, six premises and a conclusion would omit everything except the most major lines of support. Creating such a layout would no doubt be a valuable activity for students, but the detailed tracks of the argument, the places in which one might most want to make evaluations, would have been covered over like ruts and potholes after a new-fallen snow.

Barrie Wilson (1986) has proposed a visual variation of standard form analysis that I believe is not widely known. He directs his readers to divide a page into three columns. In the middle column, headed "main argument space," one writes in abbreviated form the main premises with the main conclusion at the bottom. In the left column, headed "support space," one writes the

unstated assumptions and the second-level premises beside the main premises they support and runs an arrow from the "support premise" to the related "main premise." The right hand column is headed "argument evaluation," and one records the problems beside the step in the argument they apply to. The model seems to presuppose that a complex argument has at most three "layers" of assertion. It is cumbersome for relatively short arguments, and Wilson never discusses any method for adapting it to lengthy ones. His most elaborate illustration is applied to a philosophical debate within a utopian novel written by B.F. Skinner. The debate itself is seven short paragraphs long, and his analysis requires seven pages (1986, 111-18).

2. Toulmin Layout Analysis

Since the Toulmin model of argument has been roundly rejected in the field of informal logic, I shall discuss it only briefly. Although Toulmin's own logic text is now out of print, the scheme has, ironically, become the dominant model for the teaching of argumentative writing in the field of composition; it is used in nearly all of the major textbooks (see Crusius and Channell 2000; McMeniman 1999; Ramage, Bean and Johnson 2000; Rottenberg 1994). In these books, it is not presented as a tool of argument analysis, but as a theoretical underpinning for student writing and even as a heuristic for generating arguments.

For the purposes of analyzing full-length discourse, the Toulmin model is both cumbersome and theoretically problematic. I have illustrated some of the problems in using it as an analytical tool in two prior publications (see Fulkerson 1996a and 1996b). The model is cumbersome because for every move from a premise to a conclusion, one can pull out the entire set of Toulmin elements (backing, warrant, data, claim, qualifier). In a full-length argument, there might well be more than twenty such moves, and laying them all out in the Toulmin scheme would be unhelpful. I applied Toulmin to a 1000-word argument from *Newsweek* and found that at a minimum I had to use it for five major lines of argument and it was awkward even then (see Fulkerson 1996a, 24-28). Thus I agree with Johnson when he says, "it will be both awkward and tedious to attempt to decipher the structure of, say, a 5,000-word editorial using this pattern and method of diagramming" (1996b, 139).

A theoretical problem is built into the model in the relationship between backing and warrant. Toulmin defines backing as support for the warrant, which means that the move from backing to warrant is itself an argument. In turn, this relationship means that another warrant is required to license that move, and that warrant would itself rest on backing, which would mean another argument, etc. One could end up in an infinite regress. Toulmin has acknowledged that his treatment of "backing" is much the weakest feature of his discussion (Olson 1993, 291).

Toulmin's model was never intended as a scheme for analyzing the macrostructure of real discourse.

3. Pragma-dialectal analysis

I am no expert on pragma dialectal analysis of argumentation, but based on what I know of it, I will argue that it can be of only minimal help in my quest to find a system for helping my students analyze full-length arguments. Like Toulmin, it is cumbersome because it requires a fine-grained analysis of each successive speech-act in a dialogue. It also presupposes a situation of synchronous interaction between the "protagonist" of an argument and the dialectical "antagonist." While it is common to talk of all public discourse as existing in a dialectical space,

something akin to the Burkean rhetorical parlor (and see Johnson 1996a), the conditions posited by the pragma-dialectal analysts really don't exist for written texts.

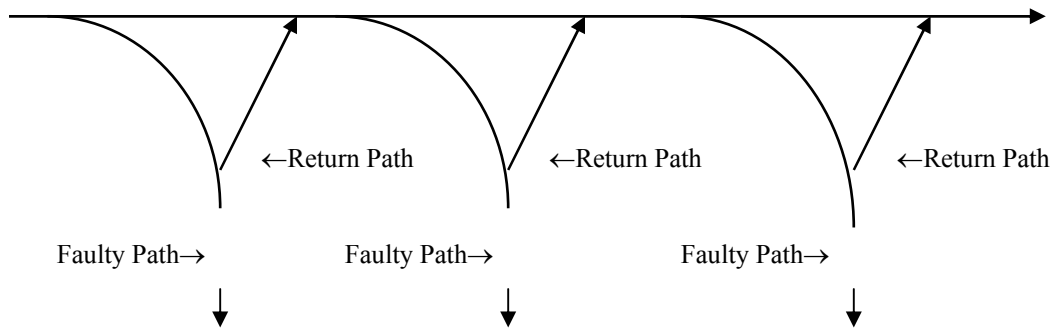
Consider the small argument above about the legalization of heroin for terminally ill cancer patients. It's true that when Kilpatrick wrote, there was ongoing discussion of the issue within the U.S. Congress and in other contemporary periodicals. In fact, Kilpatrick was obviously aware of them, since he refers directly to a prior counter argument, that the dying patient might become addicted, which argument he dismisses out of hand. But this public debate is only superficially like the "critical dialogue" posited in pragma-dialectics. For one thing, Kilpatrick and the other participants in the ongoing polylogue are not acting jointly to achieve a mutually satisfactory resolution. As a result, the stages posited in pragma-dialectics (confrontation, opening [including common ground], argumentation by the protagonist with interaction by the antagonist, and conclusion) correspond only loosely to the rough-and-tumble of public printed discourse. Moreover, once a view is set forth in print, there is no official mechanism by which an antagonist can point out a problem that the arguer must then repair. (In fact, Kilpatrick's column favoring medical heroin was answered by Representative Charles Rangel in a letter to the editor three weeks later, a letter ignored by Kilpatrick as far as I can determine.) In contrast, the print arguer must attempt to predict likely objections by members of his/her audience and build them into the argument. As Kaufer and Geisler have noted, "dialogic assumptions of argument do not cover the print conventions of post-Enlightenment scholarly argument, where the arguer is expected to say something new against the resistance of earlier texts" (1991, 111) and further, "to an argumentative event, print brought too many interlocutors and too few intact ones to furnish the stuff out of which good dialogues are made" (1991, 111).

And even if those problems can be gotten around by suitable loosening up of the pragma-dialectal conditions and somehow locating a second voice, a pragma-dialectal analysis tends to be longer than the original speeches. In Eemeren, Grootendorst, Jackson, and Jacobs' *Reconstructing Argumentative Discourse* (1993), for instance, a 21-line exchange between two Mormon missionaries and a Mrs. Lee is subjected to a four-page analysis that I estimate at 1200 words, about six times as long as the dialogue being examined. Pragma-dialectal analysis is like poetry explication—a fourteen-line sonnet can generate page after page of interpretation. And to be fair, I should note that this is not a fault of pragma-dialectics. Pragma-dialectics was designed to allow very fine-grained microanalysis of critical discussions, not to help students analyze the macrostructure of written discourse.

4. Main path/faulty path analysis

I include this section only in the interest of thoroughness and curiosity, for I know of no one who has made any further use of the approach proposed by two English professors, David Kaufer and Cheryl Geisler, which I am calling main path/faulty path analysis. Kaufer and Geisler were interested in studying the ways in which discourse in various academic fields made use of citations to prior authors. Although we often suggest to students that they use prior published materials as authoritative support for their own arguments in research papers, Kaufer and Geisler noted that this was not the major use to which scholars deploy prior writings. Instead they do what I am doing in this paper: "they distribute brief or extended fragments of alien voices throughout their constructive argument" (1996, 111). Thus the authors proposed a visual diagram aimed primarily at "understanding the relationship between external sources and an author's original line of argument" (1996, 112). And their diagram essentially involves a left to

right arrow representing the sequence of claims that the author endorses; this is the main path. But at intervals, the author will deviate from this main path onto a “false path,” which he will articulate and then critique in a two-part movement swooping away from the main path onto the faulty path, and then arcing back along a return path.



To illustrate how the visual layout works, Kaufer and Geisler apply it to a section of text from an essay by Stephen J. Gould, arguing a thesis about ideology and nature. In the course of his argument, Gould criticizes views of Darwin, Huxley, Malthus, Kropotkin, Teilhard and others, all of which represent “faulty paths.”

5. Tree diagrams

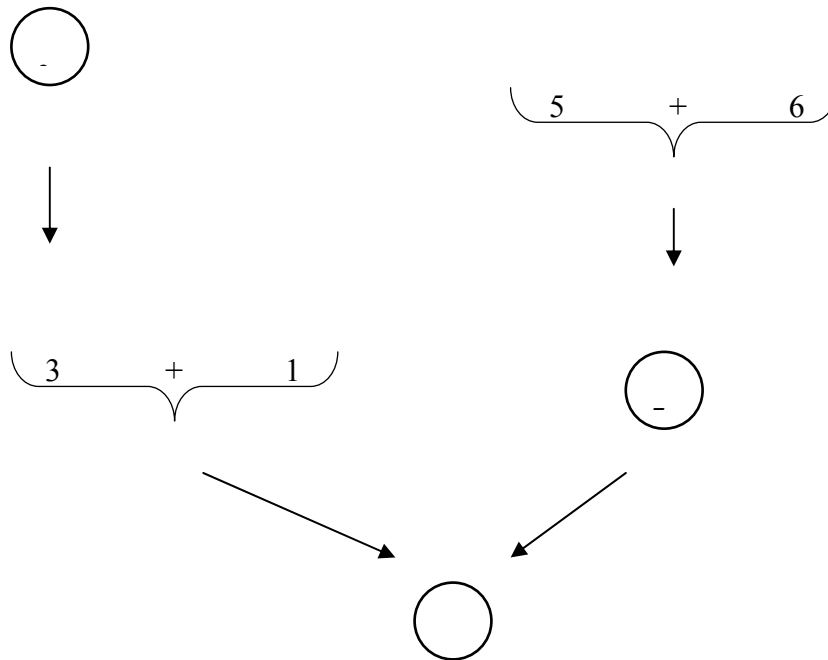
By far the most likely candidate for the sort of schematization that I am wishing for are the diagrams that use arrows to connect premises to conclusions in a downward movement on the page, a sort of diagramming that I understand to have been created by Monroe Beardsley in *Practical Logic* (1950). Variations of the scheme are common in contemporary logic texts (see Copi and Cohen 1998; Govier 1997; Hurley 2000; Johnson and Blair 1983; Thomas 1981). Indeed, it was this procedure that raised the original problem for me, since it is presented in books I have taught from, yet seems problematic when my students try to adapt it for full-length written texts, even using suggested guidelines provided by the authors.

Because I am most familiar with the presentation in David Kelley’s *The Art of Reasoning* (1998) and because I find his presentation to be one of the most thorough and thoughtful, I’ll rely on it for the moment to discuss what I call “circle and arrow” (C&A) diagrams. The basic tenets are as follows. To analyze a text containing an argument, each proposition that plays a role in the argument is given a number, usually in the order in which the propositions appear in the text. The conclusion of the argument is identified, and its number is placed at the bottom of a diagram, with arrows running to it from the propositions that support it directly. They, in turn, may have further arrows indicating what propositions they are derived from. Unstated but needed propositions can be identified with letters instead of numbers. If two or more premises support a conclusion conjointly, plus signs are used to connect them; otherwise several lines of support may lead to one conclusion, in what Govier would call a conjunctive argument (1997, chap 11).

We can use the example text adapted from Kilpatrick to illustrate this sort of schematization as well. If we accept the identification of main propositions that Conway and Munson made, then we can also use their numbers. The standard form looked like this:

- 1) DAM is the one drug that would best relieve the agony many terminal cancer patients suffer.
- 2) Such agony often leads to a severe deterioration in the quality of life of the patient and heartbreak for the patient’s family.
- 3) Whatever drug would best relieve this agony should be made available. 2
- 4) DAM should be made available. 1,3
- 5) The objection that a cancer patient might unexpectedly survive is callous.
- 6) There would be time to worry about addiction if a patient unexpectedly survived.
- 7) This is not a serious objection to the conclusion in 4. 5,6 (1997, 26)

The appropriate C&A diagram would look something like this:



The only feature of this scheme not illustrated above is the identification of an unstated premise, and we could easily add one if we wished. The right hand line of reasoning is a bit odd for a C&A diagram, since it involves refutation of a counter viewpoint. Logically, it is questionable whether 7 actually provides a reason to believe that 4 is true, but in context, the denial of an objection probably does at least strengthen the acceptability of a claim. (We’ll see a better way to handle counterclaims in this scheme momentarily.)

But again, if one is dealing with a text of 1000 words it would obviously be counterproductive to number all the propositions, even were there only 30 propositions. After all, the whole point of a visual diagram is to assist both a critic and the reader in understanding what is going on in the argument. A diagram with 30 or more arrows on a page would be chaos. Somehow or other a way to deal with only the skeleton of the argument, yet without omitting the guts that are crucial to its life, has to be found. Summary becomes the order of the day, and I'll return to it in a moment.

By far the most elaborate treatment of the C&A approach is Alec Fisher's book *The Logic of Real Arguments* (1988). And despite what I have just said, Fisher does offer a procedure for using C&A diagrams with lengthy texts, although all of his examples are in fact pieces from much longer discourses. He deliberately avoids what he calls "everyday reasoning" in favor of "theoretical argument of the kind that university and college students encounter in the course of their work . . . sustained theoretical arguments" (vii). Fisher's "general method of argument analysis" (chapter 2) begins by having students read carefully and mark in a text both conclusion indicators (like "therefore") and "reason indicators" (like "for" and "since") (16-17, 21). No surprise here, since the same advice is given in Copi and Cohen (2000) and in Kelley (1998). Students are to underline any "clearly indicated conclusions" and to bracket any "clearly indicated reasons" (21). Next the main conclusion is marked as C. The analyst then works backward from the conclusion to ask what major reasons the text gives for accepting C. If the major reasons are not "transparent" (22), the analyst is to ask what Fisher calls the Assertibility Question (AQ): "What argument or evidence would justify me in asserting the conclusion C?" (22). He gives the standard directions about how to designate conjoint premises versus independent ones and about supplying unstated assumptions. At first blush, his approach would seem to yield an enormous diagram.

But as Fisher proceeds to illustrate his system, using extended samples of discourse, he manages to boil the texts down considerably by the time he has left out repetitions, rhetorical flourishes, explanations, and the like. Thus a speech about nuclear deterrence (Casper Weinberger) is twelve paragraphs long but diagrams into a C&A pattern with fifteen premises on four levels. I speculate that this is only possible for the sort of "theoretical discourse" that Fisher has chosen, discourse that works primarily by deduction from broader principles but need not include any empirical evidence. I suspect that this sort of discourse actually uses a higher proportion of overt premise and conclusion indicators than most everyday discourse does.

What happens if Fisher's directions are applied to my illustrative column by Kilpatrick? To my surprise, the 700 + words of the column include not a single conclusion or premise indicator. The only connectives are "if" and "but" used several times each. Conclusions, however, are easy to locate:

- 1) making heroin available to cancer victims is not a novel idea (graph 4).
- 2) the reasons given for opposing the bill lack substance and merit.
- 3) the possibility of theft of heroin can be dealt with.
- 4) [unstated] diversion of all the medical heroin into the street would be trivial.
- 5) heroin is the most effective drug for terminal cancer victims.
- 6) possibility of a new synthetic drug being developed in future is not a reason to reject use of heroin.

- 7) [unstated] voting for the medical use of heroin would not make lawmakers look soft on drugs.
- 8) the bill contains abundant provisions against abuse.
- 9) Legalizing heroin for treatment of terminal cancer patients is worth a try.

A substantial portion of Kilpatrick's column is devoted to refuting opposition objections to legalizing heroin use. In fact, virtually all of the conclusions in my list are conclusions drawn from responding to counter arguments imputed to opponents of the bill. Kilpatrick's constructive argument is quite simple: Since heroin is the most effective drug for relieving the pain of terminally ill cancer victims, heroin should be legal for this use. Therefore, Inouye's bill should pass.

I am at something of a loss as to what Fisher would do at this point. Perhaps this is why he does not trouble himself with practical argumentation. Not only do I have nine conclusions, but in support of them, I have seventeen premises (not counting any conclusion as itself a premise as well). And neither of those lists includes propositions in which Kilpatrick states opposing views prior to refuting them. Fisher includes no procedure for counterclaims; the only refutation he deals with is a complete argument by Marx that itself refutes one by Weston. If I were to follow the lead of Conway and Munson or of Kelley, these counterclaims would also have to be labeled as premises (of a unique sort). Since there are about six of these "counterpremises," the total number of propositions I would need to include in a thorough diagram comes to thirty-two. My own rule of thumb is that a diagram representing more than about a dozen propositions is unwieldy. Of course I have not attempted the procedure of first summarizing and then diagramming, but neither does Fisher. The texts that he analyzes seem to have a significant amount of repetition and explanation in them, material that simply drops out as he hunts for premises and conclusions. Perhaps the constraints of writing an editorial column of 730 words actually caused Kilpatrick to be terse.

In their review of Fisher in *Informal Logic*, Malone and Sherry (1988) were highly laudatory, but they shared his presumption that students needed mainly to analyze "sustained theoretical discourse" of the sort "encountered in course work" (105). Perhaps this once again highlights the contrast between the concerns of philosophers and those of rhetoricians. As I understand their work, few of my students ever run into the sort of "theoretical" discourse (e.g., Mill, Marx, Darwin) that Fisher is concerned with. Malone and Sherry conclude that "As an introduction to logic which prepares students to use the discipline in further studies, *Real Arguments* has no serious competitors" (108). And since they have actually used it with students, apparently one of my major fears, that my students would simply be unable to read either the theoretical arguments or Fisher's analyses, may be obviated.

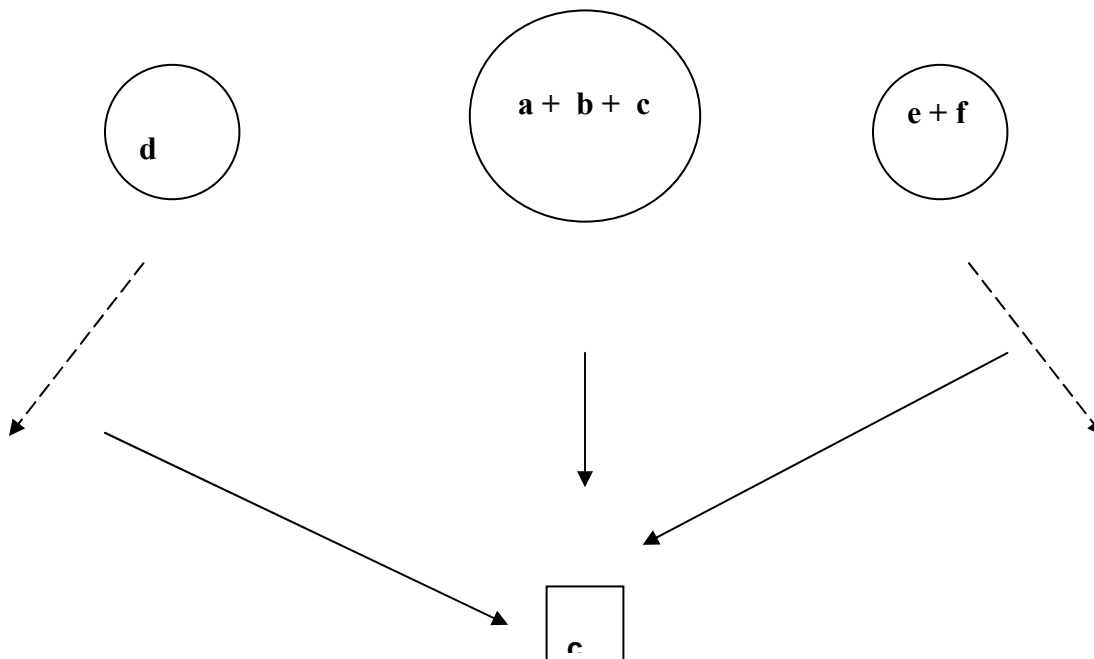
Fisher performs finesses that allow his C&A diagrams to be considerably briefer than the number of propositions in the text would seem to require. Other books that consider how to apply C&A diagrams make this move overt by actually telling students that before they can do a diagram they must in fact write a summary of the text. Kelley (1998) calls it "distilling" an argument (167) and says students must "boil the argument down to its essence" (171). Johnson and Blair (1983) call it "extracting the essence" (208) but are careful to distinguish writing a "synopsis" from a summary. (More on this below.) However, the longest text Kelley deals with is under 200 words. In this chapter, he makes the useful addition of the "negative arrow" (indicated by putting a slash across the middle of the arrow), an arrow indicating that an author

has included a line of reasoning against his/her position, either acknowledging it or refuting it. Using a pair of diagrams and these negative arrows between them, Kelley also shows how one can actually diagram a debate—as long as it’s short. He illustrates with two letters to the editor about the safety of automobile airbags. The letters are about 100 words each, but the diagram takes 19 propositions. My students do *not* learn from this chapter how to make the leap from texts of 100 or 200 words to those of 1000 or 5000.

Obviously the key lies in learning to do a summary and thus shorten a text while not leaving out or distorting any significant feature of the argumentation. Perhaps that is too much to ask.

Johnson and Blair in *Logical Self Defense* (1983) take a similar step but are more realistic. In Chap 9 “Analysing Extended Arguments” they direct students to use a four-step process for assessing these extended arguments:

- 1) Write a Synopsis of the argument—not a summary, but first an identification of the conclusion, and then description of “the various strategies used to generate that conclusion” (209). “The key to writing a good synopsis is intelligent use of the paragraph structure of the original text. Most writers use the paragraph structure as their unit of development and attempt to present their case point by point.” The idea is to produce a “subtext” to analyze. They illustrate with a six-paragraph argument about the effects of pornography legalization in Denmark that draws a conclusion about Canada by analogy.
- 2) Identify Main Premises and Conclusion—sketch a tree diagram of the macrostructure of the argument. They assign a letter to each paragraph, and later use the letters in a diagram, as well as brief summary phrases. Thus one might find that a given conclusion is designated as being supported by one line of reasoning (arrow) with three entire paragraphs given as the premise or premises. And there is a vaguely explained turning method of including counter arguments with a dotted arrow going off in another direction.



- 3) Put the Main Premises into Hierarchical Order—list them in a standard form but putting the most important first.
- 4) Evaluate the Argument.

Both Kelley and Johnson and Blair, then, rely on the student analyst to be able to construct a much shortened version of the original text, which is nevertheless accurate, omitting nothing crucial, not altering the author's ideas while rephrasing them, not introducing any of the analyst's own presuppositions into the reduced text.

Kahane and Cavender in *Logic and Contemporary Rhetoric* (1991) do not actually use arrow diagrams, but I treat them here because they also emphasize creating a summary prior to analysis. In a 25-page chapter on "Evaluating Extended Arguments," they present the "margin note and summary method," in which, on the second reading, the student annotates the "important passages with an indication of their content written in the margin" (172). From the marginal notes, the student then constructs a summary of the argument and is told to "Evaluate the essay by evaluating your summary, checking back and forth to be sure there are no significant differences" (172). The authors assume that an argument will be presented as a three-level structure, with a thesis, reasons for the thesis, and evidence for the reasons.

They illustrate the procedure with a syndicated column criticizing McDonald's for switching from foam containers to coated paperboard. The column is a straightforward argument that the polystyrene containers were ecologically superior to paper for four reasons. And each reason is backed with scientific information about the features of the two materials, such as the energy required to produce it, and its biodegradability. So the column fits nicely within their assumption that arguments consist of a thesis, reason-premises, and evidence-premises. Kilpatrick's column works in a similar way, with the addition of counterarguments.

Given what we know about the value of annotating a text for understanding it plus the need to get at the macrostructure or skeleton, this seems like a sensible process. In a way, it is what I did mentally when analyzing the Kilpatrick column. I'm not sure students using this chapter would be able to construct a premise and conclusion summary of a less linear presentation, and I wonder what they would do with a more elaborate argument that had more than three levels of claim and support.

As a composition specialist, I suggest we should view skeptically the advice about using the paragraph structure of the original text as the basis for the summary. Research will not support the claim that "most writers" use the paragraph structure as "their unit of development and attempt to present their case point by point." That is often true of scholarly and technical prose, but tends not to be the case in editorials, magazine essays, trade books, etc. (See Braddock 1974.) Nevertheless, Kahane and Cavender's chapter is probably the best presentation of how to summarize that I have found in materials on argument analysis, with Blair and Johnson's a close second.

A Brief Foray into Reading Theory

As a composition teacher I would not have thought students would have difficulty summarizing a text they had read. What could be easier than to read a text and write a brief summary of it, beginning with its major claim and the major lines of support? We ask scholarly authors to produce abstracts of their own and others' work all the time. Many fields traditionally expect an article to begin with a "Survey of the Literature," which involves multiple summaries. And summary is thought to be so basic and of so little academic value that English teachers constantly warn students, who write in response to our class readings, that we don't want summary: we want some sort of critical interpretation, response, application, comparison. In short we want to see some critical thinking about the text, but we have read it ourselves and thus don't need any summary.

Imagine my surprise, then, when (frustrated with the work of some senior high school students I was teaching), I dipped into what reading researchers say about summary writing. "Composing . . . a summary is a complex task and requires considerable skill" (Baker and Brown 1984, 373). "Most teachers find it difficult to teach students how to summarize" (Marzano, Hagerty, Valencia, and DiStefano 1987, 212). Martha Casazza wrote a full article in the *Journal of Reading* entitled, "Using a Model of Direct Instruction to Teach Summary Writing in a College Reading Class" (1993). In it she summarizes the set of "rules" for writing a summary that students must learn, either overtly or intuitively. They include "deletion" of minor or repetitive information, "combination" of details into categories with superordinate labels supplied by the reader, "selection" of major idea sentences provided by the author, plus "invention" of main idea sentences that the author leaves implicit (203). Research indicates that students can be taught the systematic application of these rules, although the "combination" and "invention" rules actually require considerable cognitive skill. "Even older students . . . had difficulty with the invention rule, which requires that students add information rather than just delete, select, or manipulate sentences" (Marzano et al 1987).

Interestingly, the idea that reading argumentative texts is a complex skill that students have to be taught has become a focal point in the teaching of argumentative writing in the last decade. Most of the major textbooks on how to write arguments now include lengthy chapters on how to read them. The shift is neatly reflected in the history of the most successful written argument textbook in American colleges, *Writing Arguments*, originally by John Ramage and John Bean. The first edition, in 1989, contained no such chapter. But a new chapter two, "Reading Arguments," appeared in the second edition in 1992, and remained in the third edition (1995), and the current (1998) fourth edition, where it takes up thirty-five pages and is titled "The Process of Reading Arguments."

A survey of other argument rhetorics revealed that at least fifteen, about half of those currently available, contained extensive sections or chapters on how to read. The chapters often had similar titles, such as Crusius and Channell's "Reading an Argument," Linda Wood's "A Process for Reading Argument," or John Gage's "Reading for Reasons." Clearly attention to how students read argumentative texts is now a big deal. There is not space here to go into the plethora of techniques the books suggest, which include multiple readings, specific ways of annotating, and yes often constructing a summary. The conclusion I draw from these chapters, from research in reading theory, and from my own classroom experience is that writing a precise

summary of an argument is a difficult task, yet an imprecise summary will automatically lead students into inaccurate and inappropriate analysis.

So—argument analysis of full-length written texts is difficult because of the inherent difficulties of reading such texts, and none of the usual systems of argument schematization work very well, especially in the hands of novices. I certainly wish I had “the” answer to propose, or even “an” answer. I don’t.

Contributions from Rhetoric: Stasis Theory and Argument Schemes

But I do have two suggestions, adapted from traditional rhetoric. Argument moves represented by the arrows from premise to conclusion in a C&A diagram of a public argument tend to be of identifiable types. So do the types of claims being put forward. In both my composition classes and my Introduction to Logic, I teach students two brief taxonomies that can help them in both writing their own arguments and in reading the arguments of others.

Stasis Theory and Argument Genre

Various composition scholars have adapted the classical idea of identifying the “stasis” upon which a controversy turns. We have connected the idea of stasis with the concept of discourse genres and produced textbooks that teach students to identify the stasis of their major claim and from that claim identify the needed features of a *prima facie* case. There isn’t space for me to go into all the ins and outs of a stasis-based course here. Basically modern composition stasis theory says that the major claim of an argument may be definition,

- substantiation,
- causation,
- evaluation, or
- recommendation. (see Eckhardt and Stewart 1979; Secor 1983)

These five constitute a nested hierarchy in which each one builds on those above it in my list. This progression up the stases to the most complicated one of “recommendation” (a proposal of what policy ought to be followed) provides the major course structure for a number of first-year composition courses. I suggest that it can also be used as a reading strategy. Once a student has identified the major claim in a piece of writing, the she or he can then categorize it as one of the five stases, and from there can begin looking for the elements that arguing such a stasis commits a writer to.

The Kilpatrick column that I discussed earlier, for instance, is a direct example of a policy argument asserting that the U.S. Congress should legalize the use of heroin as a treatment for terminally ill cancer patients. Policy arguments always turn on a problem with the current policy, a proposal that should causally remove the problem, and has minimal harmful costs/consequences itself. In debate jargon, the stasis of policy must address need, plan, advantages, disadvantages. So in reading an argument that has been identified as within that stasis, students can use its features as heuristic probes. In Kilpatrick’s column the problem is people dying in needless, excruciating pain, the solution is to provide a type of heroin that is the

best known pain killer, and the only potential disadvantage is that a terminally ill patient might become addicted to the drug.

Argument Schemes

Douglas Walton (1996) notes in *Argumentation Schemes for Presumptive Reasoning* that arguments tend to fall into repeated identifiable “schemes” or “modes” of reasoning, what the Greeks called *topoi*. In fact he identifies what I have just called policy argument as one of the twenty-five or so schemes. Walton acknowledges that this sort of approach to argument seems more like rhetoric than like logic, and he traces it back to Aristotle’s discussion of dialectical reasoning in his *Topics* and identifies Chaim Perelman and Lucie Olbrechts-Tyteca’s *The New Rhetoric* as a modern analysis in the same vein. Perhaps that is why I feel comfortable with the idea of argument schemes and in fact have been teaching my logic students a simplified taxonomy of them as a central part of argument analysis. I maintain that most argumentative moves (represented by the arrows in a C&A diagram) fall into one of six schemes that can be recalled easily using the acronym GASCAP. (Walton’s list has all six, with slightly different names.)

G	generalizing from examples or a sample to a larger population
A	arguing by analogy from parallel cases including precedent
S	arguing by signs (indirect evidence or clues)
C	arguing for a cause and effect using Mill’s methods, sometimes informally
A	arguing by authority
P	arguing from some generally accepted principle (which may be a conclusion reached through any of the prior schemes)

I doubt that I can claim GASCAP is a jointly exhaustive category system, and I do not claim that the categories are mutually exclusive. Often they work together, as one might join analogy and expert authority to derive a principle about inflation, and then reapply that principle to the current economic situation. My point is that for students GASCAP is a simple and usable set of moves that takes in most of the arguments they will encounter. In fact, I will go so far as to say that virtually all of the twenty-five or so schemes Walton has identified can be grouped neatly under one of the GASCAP headings. For instance, he includes “argument from commitment,” “argument from an established rule,” and “argument from precedent,” all of which I would say can be considered as the application of an accepted principle.

Let me make clear why I have presented GASCAP and stasis theory as separate. They relate to each other as means to ends. In order to determine the stasis being argued, the analyst needs only to identify the main claim, the purpose or end of the discourse, and then categorize it. Once that is done, then certain sorts of sub-arguments are likely to crop up. But the GASCAP modes are means of making moves from premise to conclusion, and as such any of the six modes may show up in any of the different stases. So a student reading an argumentative text might ask the following questions:

- 1) Of what stasis is the main claim of this argument?
- 2) What features does a prima facie case for that stasis require? Are they present?
- 3) Which of the GASCAP modes play primary roles in the argument?

In separating stasis analysis from scheme analysis, I thus disagree somewhat with Walton who classifies policy arguments along with his other schemes (as the Argument from Consequences 75). I see this as confusing the schemes of arguing with the aims. The arguer's goal may be to argue for a particular policy: mandatory retirement age is Walton's example. The methods used to achieve this goal may draw from any and all of the GASCAP modes.

Let me illustrate the interplay of stasis theory and GASCAP by using once again Kilpatrick's argument in favor of legalizing heroin. Since the column argues the stasis of policy, the analyst knows to look for the problem with the *status quo*, a proposal, the prediction of consequences both good and bad, and a weighing of the good against the bad. Kilpatrick takes the existence of a problem to be obvious, in that at any given time there are several thousand "pitiful and helpless human beings" suffering from terminal cancer, two of whom have been his loved ones. But of course there are already anesthetics in use for such pain, so Kilpatrick actually builds a case that the current approaches (which include morphine and Dilaudid) are not as effective as heroin. He cites the wording of the law being proposed, which has several qualifiers built into it: "a temporary program under which parenteral (injectable) diacetylmorphine will be made available through qualified pharmacies for the relief of intractable pain due to cancer." He further argues that heroin would go far to relieve the pain felt by terminally ill cancer patients, and that the small amounts involved to be dispensed would be unlikely to induce criminals to break into hospital pharmacies. If terminally ill patients should become addicted to the drug, "there would be time to worry about addiction if the terminally ill patient surprised his doctors."

We could easily use the results of the stasis probing to create a partial diagram of the argument, and it would not look too unlike the tree diagram we saw earlier. But a GASCAP probe would yield some further insights. Does Kilpatrick argue from examples to generalizations? Yes, he cites his experiences of the agonizing deaths of two "loved ones" to show the sort of pain he asserts is felt by thousands. He also cites (vaguely) "extensive clinical research" that he says has "demonstrated the remarkable painkilling properties of the drug." Does he argue from Authority? The answer is "yes," although any such argument was lost from the earlier summary. Specifically, he cites the National Committee on the Treatment of Intractable Pain to refute an opposing point. He also refers to (unnamed) "many physicians" who believe that heroin is the best drug for this situation. And the bill itself is cited for research conclusions actually written into it about the consequences that terminally ill cancer patients are likely to experience, including "a severe deterioration in the quality of life of the patient and heartbreak for the patient's family." If one wanted to fault Kilpatrick's argumentation, his use of argument by authority in the column seems to make him vulnerable, although charity might lead a reader not to demand too much in 730 words.

Does he argue by sign? Not that I can see. What about cause and effect? Here the answer is iffy. Anyone proposing a policy is going to argue about its probable consequences, but that is usually done by taking known principles of cause and effect and applying them (i.e., an argument by "principle" rather than an argument to a claim of cause and effect). Certainly Kilpatrick does that. But he also argues that a causal claim made by his opponents, that the proposal would probably cause theft and the diversion of medical heroin into the street traffic, is wrong.

What about argument by analogy? Nothing mentioned so far suggests any such line of reasoning. But in fact, it's here as well. For he notes that the proposal to make "heroin legally available . . . is scarcely a novel idea. Physicians in Great Britain have been prescribing heroin

for such patients for several years. It works.” And certainly the argument depends on several widely accepted principles: that intractable pain is bad, that in a democracy government should play some role in alleviating the pain of the populace. (But in honesty the opposition arguments are largely grounded in the widely-held principle in the U.S. that narcotics are evil.)

The Summing Up: Work for the Future

Can we pull all this analysis together into a useful schematic somehow? Yes, I think so—either a more sophisticated version of the C&A diagram, or perhaps a two dimensional grid with the *prima facie* features of the stasis on one axis and the GASCAP modes along the other. As yet another approach to analysis, then, the argument interpreter could fill in the various boxes of such a grid on her way to producing a summary and a diagram. Each GASCAP mode can also be matched with a corresponding fallacy (generalization to hasty generalization; analogy and authority to the “false” versions of each; principle to the fallacy of accident; sign to “misuse of fallible sign”; cause to *post hoc ergo propter hoc*). Thus the schema analysis can also help in evaluation of the argument.

The more I reflect on what all goes into my own argument analysis, the more I discover ways that students can go wrong through no fault of their own. Well, no one ever said that teaching informal logic was going to be easy.

Appendix I

Kilpatrick’s column “Legalize Heroin for Patients in Pain” *Washington Post*, June 14, 1987, H7.

- 1) Hawaii’s Sen. Daniel Inouye is tied up these days as co-chairman of the Iran-contra hearings, but several thousand pitiful and helpless human beings would like to send him a message: get on with those hearings, senator. You have other important work to do.
- 2) Inouye is principal sponsor of a bill, S. 143, that he hopes will become the “Compassionate Pain Relief Act” of 1987. The bill would establish “a temporary program under which parenteral (injectable) diacetylmorphine will be made available through qualified pharmacies for the relief of intractable pain due to cancer.”
- 3) Diacetylmorphine is heroin. For persons dying of inoperable cancer, many physicians believe it is the one drug that would best relieve the agony their patients suffer.
- 4) The idea of making heroin legally available to such victims is an idea that may be hard to accept, but it is scarcely a novel idea. Physicians in Great Britain have been prescribing heroin for such patients for several years. It works.
- 5) Inouye’s bill sets forth certain findings that lay the groundwork for this proposal. Cancer afflicts one out of four Americans; it is the second leading cause of death. “In the progression of terminal cancer, a significant number of patients will experience levels of intense and intractable pain which cannot be effectively treated by presently available medication.” The effect of such pain often leads to

a severe deterioration in the quality of life of the patient and heartbreak for the patient's family."

- 6) At present, any use of heroin—even therapeutic use—is prohibited by law, although extensive clinical research has demonstrated the remarkable painkilling properties of the drug. The reasons that are given for opposing Inouye's bill lack both substance and merit.
- 7) Opponents contend, for example, that if heroin is legally stocked in a hospital's pharmacy, attempts will be made to steal it. This is a possibility, of course, but it can be dealt with. A related objection is that a pharmacy's supply of heroin might be diverted in some fashion to someone other than the patient for whom it is prescribed. The National Committee on the Treatment of Intractable Pain makes the point that if all the heroin required under Inouye's bill were stolen or diverted—all of it—it would constitute only 2 percent to 4 percent of the heroin illegally on the street and available to other addicts.
- 8) Another objection—and this seems especially callous—is that a cancer patient might unexpectedly survive and turn out to be addicted. The bill is intended for the relief only of those patients suffering cancer "with a high and predictable mortality." There would be time to worry about addiction if the terminally ill patient surprised his doctors.
- 9) When the senator's bill was under discussion in the 99th Congress, some physicians testified that heroin is not better than other drugs for the relief of agonizing pain. The response to this objection seems to be yes and no. When given by mouth, in single doses, heroin and morphine may work equally well, but when given by injection, heroin may be more effective in certain patients. As for Dilaudid, it carries side effects that terminally ill patients positively do not need.
- 10) A final group of objections, gleaned from last year's debate, stemmed from the hopeful notion that eventually a new non-addictive drug, equally as effective as heroin, will be developed. Perhaps so, but for a patient suffering the kind of pain with which the bill is concerned, "eventually" is a poor substitute for "now."
- 11) The principal unstated objection to the Inouye bill is that members of Congress do not want to be politically identified with the legalization of heroin under any circumstances. This imputes to members both a want of compassion and an excess of cowardice. Surely voters are capable of understanding the vast difference between promoting heroin and prescribing it.
- 12) Inouye's bill contains abundant provisions against abuse. The drug would be available only to a special class of patients; it could be dispensed only by written prescriptions from licensed physicians. The program would expire after five years if it turned out to be unworkable.
- 13) Isn't this worth a try? Three times in my life I have seen loved ones die of cancer, and two of them were in such pain they could neither weep nor scream. Injections of heroin might have let them go in relative peace. It's not a great deal to ask. [731 words, 13 paragraphs]

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