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New Methods For Evaluating Arguments

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New methods for evaluating arguments are being developed by practitioners of various disciplines to supplement the traditional methods of syllogisms and formal logic long in use. One can get an idea of how these methods are being developed by looking at recent issues of the journal *Argumentation*, or the journal *Informal Logic*. These methods clearly are of interest to those teaching critical thinking. But they require a new way of looking at an argument that is still not widely understood or appreciated.

This new way of looking at an argument is really not so new—Aristotle called it 'dialectic' (Evans, 1977). But it is new in the sense that it has been out of the mainstream of western intellectual tradition, and way of teaching critical thinking (or at any rate, subsisting in a shadowy way on the fringes), for some two thousand years. So nowadays it is perceived as new.

This new way of viewing an argument is frequently called informal logic, suggesting a contrast with formal logic (the dominant type of logic in western intellectual tradition). But it could also be called communicative logic, or pragmatic logic perhaps, in that it is expressly directed to judging particular aspects of how an argument was used for some communicative purpose, well or badly, in a given case.

The difference between formal logic and informal logic resides in the method used to evaluate an argument in a given case. In using methods of formal logic, the form of the argument is the locus of evaluation. But first, the premises and the conclusion of the argument are identified in the given case, and then the argument is shown to be an instance of a form of argument. This form of argument, then, is evaluated by the methods of formal logic. The general principle of relating formal logic to a particular case is that, if an argument has a valid form, then a particular argument must also, itself, be a valid argument simply in virtue of having that form.

The methods used by informal logic are quite different because, with respect to evaluating an argument in informal logic, the form of the argument

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is not, by itself, sufficient to enable one to arrive at an evaluation of the argument as weak or strong, reasonable or fallacious. The method of informal logic is to consider the evidence given in the text of discourse in a particular case, and then to evaluate this evidence in light of the context of conversation in which the argument in the given case was used for some purpose.

1. Types of Dialogue

In informal logic, an argument is evaluated with respect to how it has been used in that particular case, within the framework of what is called in Walton (*Pragmatic Theory,* 1995) and Walton and Krabbe (1995), a type of dialogue. A *dialogue* is a goal-directed, collaborative conversational exchange, of various types, between two parties. Among the types of dialogue identified as normative models for the evaluation of argumentation, one is called the *critical discussion* or persuasion type of dialogue (Walton, *Informal Logic,* 1989, pp. 5-7). The critical discussion type of dialogue (van Eemeren and Grootendorst, 1984) is a subspecies of persuasion dialogue in which the goal is to resolve a conflict of opinions by rational argumentation. The persuasion dialogue is a more general type of conversational exchange of which the critical discussion is a sub-type. In a persuasion dialogue, there are two parties and the goal of the one party is to prove to the other party that the first party's thesis is true. For convenience, let's call these two parties the *proponent* and the *respondent* in the dialogue.

In general, in a persuasion dialogue, the proponent's goal or obligation is to prove her thesis as conclusion using as premises propositions that are exclusively commitments of the respondent. The goal of the respondent is to ask critical questions to throw doubt on the attempts of the proponent to prove her thesis. Actually, there are two basic types of persuasion dialogue. One is the symmetrical type of persuasion dialogue, where both parties have a designated thesis to be proved, and the goal of each party is to prove that thesis using only premises that are commitments of the other side. However, there is also an asymmetrical type of persuasion dialogue in which the one party, the proponent, has the positive burden of proof described above, while the respondent has the weaker burden of only having to throw sufficient doubt on the proponent's attempt to prove her thesis in order to successfully carry out his goal in the dialogue.

The persuasion dialogue between the theist (who claims that God exists) and the atheist (who claims that God does not exist) is a symmetrical type of persuasion dialogue. The persuasion dialogue between the theist (who claims that God exists) and the agnostic (who doubts that God exists) is an asymmetrical type of persuasion dialogue.

Whether the persuasion dialogue is of the symmetrical or the asymmetrical type, basically, the purpose of it is defined by an issue, that is, formulated at the opening stage of the dialogue. This issue is composed of a conflict of

opinions that is to be resolved by the discussion, and then, the basic goal of each participant in the discussion is to prove his or her thesis using premises that are commitments of the other party.

The nature of persuasion dialogue can be explained very well through Figure 1 (reprinted from Walton, *Informal Logic*, 1989, p. 6).

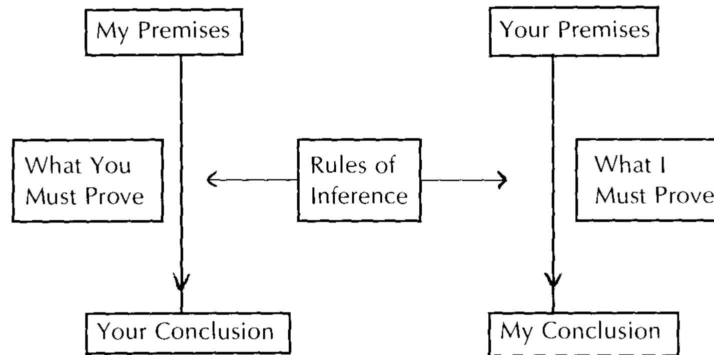

Figure 1. persuasion dialogue (critical discussion)

The concept of a commitment in dialogue was introduced by Hamblin, 1970. According to Hamblin, a participant in a dialogue indicates agreement or disagreement with any preceding remark of the other speaker in the dialogue, and these responses are used to build up a store of statements that are said to represent the speaker's commitments in the dialogue. Hamblin visualizes commitments as a set of propositions that could be written down on a blackboard or collected in a computer memory, for example. What is or is not designated as a commitment at any given move in a dialogue is determined by the type of dialogue that the participants are engaged in, and how the one party responds to the move of the other party in that dialogue. For example, if the one party asks a question, and the other party gives an affirmative answer that indicates his agreement with a particular proposition, then this proposition would be inserted into his commitment set. Or for example, if a participant were to indicate his disagreement with a proposition he had previously accepted by saying, "I retract such-and-such a proposition," then this particular proposition would be deleted from his commitment store (if it was in there before). Hamblin thought of systems of dialogue with commitment stores as ideal models of how arguers would or could behave rationally if they were, in fact, to keep a record of the prior exchanges in the conversation.

A commitment in Hamblin's sense is not necessarily a belief—that is, the purpose of postulating a commitment store is not psychological. It is not meant to model the actual intentions of a participant in an argument. Instead, the commitment store is meant to be an idealization representing how participants in a conversation might argue rationally if a careful record were made of

their commitments in the dialogue, say, by listing them on a blackboard. Clearly, in many instances, such a device would be useful in helping us to evaluate a person's argument in a context of dialogue.

The critical discussion or persuasion dialogue is not the only type of conversation recognized in Walton (*Informal Logic,* 1989). Among the other types of dialogue recognized (ibid., p. 10) are the quarrel, the negotiation type of dialogue, the information-seeking type of dialogue, the deliberation, and the inquiry. The goal of the inquiry is to prove whether a particular proposition is true or false, or alternatively, to show that it cannot be proved that the proposition is true or false. An example of an inquiry would be an investigation into an airline disaster by the authorities to study the crash and determine, if possible, what the cause of the crash was. The goal of the inquiry is to prove something, implying a high standard of proof. Proof, in this sense, means definitely establishing a conclusion on the basis of premises that are known to be true. In an inquiry, the goal is to assemble all the available relevant evidence, and then to only infer conclusions that are based on this evidence. The distinguishing characteristic of the inquiry as a type of dialogue is that it is cumulative in nature, meaning that the line of argument is always meant to move forward from premises that are so well-established to conclusions that are derived so carefully that retractions never need to be made. Thus, the ideal cumulativeness is that retractions are not made. Of course, in practice, in many cases, retractions will have to be made, but the intent of the inquiry is to try to avoid retractions insofar as this is possible. By contrast, in the persuasion type of dialogue, retractions are fairly freely allowed. They are not universally allowed, but one has to be fairly generous in allowing retractions in a persuasion type of dialogue. The key problem of defining, in different types of dialogue, exactly when retraction is or is not permitted has been studied in (Walton and Krabbe, 1995).

The purpose of the negotiation type of dialogue is to make a deal. The basic situation in which negotiation begins is that there is some set of goods or services that the participants can't have as much as they want of, and so, they have to bargain in the form of making offers and concessions to the other party in order to try to get the most of what they want from the given set of goods and services. According to the account given in Walton (*Pragmatic Theory,* 1995, p. 104), the goal of the negotiation type of dialogue is to make a deal, in the sense of reaching an agreement that both parties can live with even if it involves compromises on both sides. In this sense, a negotiation is successful if both sides get enough of what matters to them most, so that they can feel satisfied, or so that they can feel they've got an outcome that they can live with.

The goal of information-seeking dialogue is the transfer of information from one party to another. The beginning situation of an information-seeking dialogue is a set of circumstances where one party has some information that the other party wants to find out about. An example of information-seeking

dialogue would be someone who asks a passerby on the street where a certain building is located. Another example would be a celebrity interview, where the interviewer wants to find out certain information about the private life of the celebrity that would be of interest to a public audience.

Deliberation is a type of dialogue where two parties are confronting a practical problem, and have a need to determine what would be a prudent course of action for them to take. The sequence of reasoning that holds the argumentation together in deliberation dialogue is called *practical reasoning*, which is a goal-directed type of reasoning that concludes in a proposition that states a certain course of action would be prudent in a given set of circumstances. So, one type of premise in this kind of reasoning is a goal premise. The other premise is a means premise based on what the agent knows or the information the agent has in his personal situation as he sees it. The means premise postulates that there is some way to carry out an action in these circumstances which would lead to or realize the designated goal. In the quarrel type of dialogue, the purpose is for the two participants to reveal hidden grievances or grudges of a kind that would not normally be expressed in polite public conversations, in order to articulate things that have been bothering them in a relationship. In a successful quarrel, the two parties make up and resolve to be more sensitive about these things that have now been articulated, and the hope is that this dialogue will help to make for a better personal relationship. Thus, a benefit of the quarrel is a kind of cathartic effect where hidden conflicts or antagonisms can be brought to the surface. The quarrel is generally held to be a negative type of dialogue, and it seems strange at first to think of it as a normative model of dialogue in which arguments can be judged both positively and negatively. And to be sure, the quarrel usually generates more heat than light, and is not much of a friend of logic at all. One problem is that, in a quarrel, the participants tend to skip from one issue to another issue that may be completely unrelated to the first issue, except that the participant has a deep grievance about this issue that she wants to bring up at this time. The quarrel is indicated by verbally aggressive messages and indicators, and, in particular, by counterblaming in the form of *ad hominem* attacks where the one party attacks the character of the other party.

2. Relevance and Irrelevance

When studying these different types of dialogue as normative frameworks for evaluating argumentation, it is important to be aware of dialectical shifts or changes from one type of dialogue to another that can occur during the same sequence of argumentation. For example, the use of *ad hominem* argumentation is one sign that there could be a shift from a persuasion type of dialogue to a quarrelling type of dialogue, and it may be very important for someone who is evaluating the argument to be aware of the existence of such a shift. An interesting type of case of a deceptive shift of this type is the so-called infomercial which has the format and appearance of a new presentation

or talk show, but, as the argumentation goes on, it becomes clear that it is really a commercial advertisement, a form of commercial speech to sell a particular product (Cooper, 1993). The tricky thing about these infomercials is that they tend to exploit the viewer's initial expectation that he is watching some type of dialogue, like a news or talk show that is presenting information, or that has a reporting or interviewing format. But after the viewer watches the program, it later becomes clear, over the sequence of argumentation, that really the program is an advertisement. Thus, the infomercial is designed to exploit this deceptive shift from the one type of dialogue to the other. Some infomercials even have all the trappings of a news show, like expert panellists, breaks for commercials, closing credits and so forth.

Each of these types of a dialogue has a goal, and an argument that is used in context of one of these types of dialogue can be evaluated as correct or incorrect insofar as it contributes to the goal of the dialogue using the types of arguments that would be appropriate to do so. Each type of dialogue has four stages, and it is important to realize that any argument or move in a dialogue needs to be evaluated in relation to the stage of the dialogue as well as the type of dialogue in which it is being used. The four stages are the opening stage, confrontation stage, argumentation stage, and the concluding stage. These terms are self-explanatory, but it might be noted that the issue or problem which the dialogue is supposed to resolve or address is stated at the confrontation stage, and then the main stage where the arguments on both sides are presented is the argumentation stage.

One of the difficulties of teaching formal logic in the past has been our inability to define a concept of relevance that is useful and can be applied to the evaluation of argumentation in everyday cases of conversational exchanges. There have been relevance logic and other formalistic kinds of criteria devised, but it has been shown in Walton (*Topical Relevance,* 1982) that these formalistic criteria have not been very useful to help us evaluate fallacies and other kinds of failures of relevance that are important when we criticize an argument as being faulty on grounds of irrelevance. The problem can be posed by a classic case from Copi (1982, p. 110), where a legislator rises to speak in favour of a particular bill in a legislative debate, but his whole argument is directed to the conclusion that all the people should have decent housing. Now, supposedly, the fault of relevance in this case is that nobody in the legislature disagrees with the conclusion that all the people should have decent housing. It's just that this is not a very useful premise to prove that this particular proposal under consideration for legislation is a good proposal that ought to be voted for and is better than any competing proposals that might be come along. But, the problem is that the legislator's argument that all the people should have decent housing is relevant to the proposal for housing legislation under consideration. It is topically relevant in the sense that both considerations are about the question of housing. However, we could also say that the Senator's argument is not materially relevant in the sense that it

presents enough evidence or any evidence of the right kind that would change anybody's mind in the legislative debate that is ongoing. So, here, we have to look at relevance from a pragmatic point of view. Presumably, the legislators are engaging in a deliberation on whether they should vote for this bill or not, and whether this bill, in fact, is a practical solution to the housing problem that would be an intelligent course of action in the given situation. But, in this context of deliberation, the legislator's argument that all the people should have decent housing, is not useful. It is not an argument that bears on or could be used to resolve the issue of the debate one way or the other. In this pragmatic and dialectical sense, then, it is not a relevant argument. What we have to do to evaluate a case like this is to look at the goal which the housing legislation is designed as a means to achieve, and then evaluate the Senator's argument in relation to the sequence of practical reasoning that would be useful in this type of deliberation to achieve the goal. One is not given very much evidence from the context of dialogue by Copi in this case, but it seems that, from the information we are given, that the legislator is simply engaging in pettifoggery in the sense that his speech to the effect that all the people should have decent housing is simply a digression or diversion which is meant to have some popular effect on the voters, but is not a serious contribution to the deliberation—which is the type of dialogue he should be engaging in.

The problem with irrelevance in a deliberative type of dialogue is not that it is inherently harmful in what it *does* do. The problem is that it wastes time and so, therefore, may block out other arguments that should properly be considered as part of an intelligent debate that thoroughly explores both sides of the issue. In a successful deliberation, the strongest arguments for both sides should be presented and their merits weighed and evaluated by the participants. However, if the arguments are irrelevant, if they go off on tangents and digressions and make points that are not useful in the deliberation, then this weakness can undermine the goal of the deliberation—which is to arrive at an intelligent decision on what to do based on strong evidence showing that one course of action is more prudent than another possible course of action that is also being considered. You will probably need to look at the analysis of many more examples to be convinced of this new pragmatic point of view on the evaluation of arguments, but the main point here is that this perspective gives us a way of evaluating relevance (and many other faults and failures of argumentation that relate to relevance) that is not purely a function of the logical form of a particular argument that is a localized set of premises and conclusion. Instead, the focus is on the context in which the argument has been used in a given case, and the presumption is that that argument has been used for some purpose, that is, as a means of fulfilling some goal of a type of dialogue or a conversational exchange that the two parties are engaged in. So, the pragmatic approach then, generally, is based on Grice's insights that underlying any argument there are conversational postulates indicating what is a collaborative move in a conversational exchange at any particular stage of that conversation between the two parties. One of Grice's maxims was "Be

relevant!," but Grice did not tell us exactly what constituted success or failure in conforming to this maxim in a given case. The problem with Grice's proposal was that he did not make it specific enough to be applicable to actual cases of conversational argument by indicating the different types of dialogue or conversational exchanges that people generally engage in in common examples of argumentation. And, of course, the problem is that there are different types of conversational exchanges, and there can be shifts from one type of dialogue to another during a sequence of argumentation, so that it is necessary, in order to evaluate an argument in a particular case with respect to whether it is relevant or irrelevant, reasonable or fallacious, and so forth, to determine whether the argument has been put forward in, say, a deliberation as opposed to a negotiation or persuasion dialogue or other type of dialogue. The goals and the rules for each type of dialogue are quite different.

3. Ad baculum and Dialectical Shifts

An argument that is reasonable in one type of dialogue can be fallacious in another type of conversational exchange. For example, the *ad baculum* argument (appeal to a threat or fear) is generally acceptable as a reasonable type of argument in negotiation dialogue. Certainly it can be reasonable in many such cases. Typically, for example, in union management negotiations, both sides will make indirect threats. For example, the union side will threaten to go on strike if management doesn't make certain concessions, and the management side will threaten to cut wages or other privileges if the union side doesn't agree to certain demands. Such uses of threats can be excessive in negotiation dialogue, but they are not inherently fallacious *per se.* Threats are a normally-accepted part of the argumentation tactics in a negotiation dialogue.

By contrast, however, in a critical discussion type of dialogue, threats are highly inappropriate. If we're having a critical discussion on the philosophy of religion in a seminar, and we're discussing whether God exists or not, and I threaten you saying, "Well, you'd better accept my theological views or Brutus, this large person standing in the doorway, will beat you up," then that would be very clearly regarded by everyone as an inappropriate and fallacious type of argument. Not only would it be fallacious, it would be illegal, unethical and probably against university regulations. However, the point is here that the use of such an *ad baculum* argument in the context of what is clearly a critical discussion type of dialogue would stand out as being so inappropriate, so outrageous, that it wouldn't really fool anyone. It would not be a kind of deceptive tactic that would be subtle enough to confuse or deceptively persuade anyone.

Where the *ad baculum* argument can be deceptively persuasive, however, is in a kind of case where there has been a dialectical shift, that is, a shift from one type of dialogue to another. If the dialogue may appear to be partly that

of a negotiation to begin with, or if, perhaps, negotiation might have seemed somehow appropriate, then, even if the dialogue is agreed by both participants to be a critical discussion of a particular issue, still, the use of the *ad baculum* argument here may be given some apparent legitimacy by the assumption that the dialogue could also possibly involve elements of negotiation. Thus, in a political type of debate, a threat might not be so transparently fallacious as it might be, let's say, in a university seminar where participants are definitely and clearly supposed to be engaging in a type of critical discussion. So we see that realistic problems of relevance often arise when there is a subtle or disguised shift from one type of dialogue to another.

In other cases, however, the dialectical inappropriateness of the *ad baculum* argument may be obvious to everybody, but it does not matter. For example, suppose we are having a critical discussion on some issue and you make a threat to me that you know is a credible threat in the sense that I know you are in a position to carry it out effectively. I will be affected by the action you threaten to take, and I am likely to comply by carrying out the course of action you are proposing. Even though I realize that your argument (threat) is irrelevant in a critical discussion, I may, nevertheless nominally accept your conclusion that you are advocating in the critical discussion on the basis of some threat that you have made to me (Woods, 1987). Now, here, I, as the respondent, as well as the audience, may clearly see that the threat is irrelevant in the context of the critical discussion, but yet, nevertheless, the threat may be effective in that it may cause me to act in a certain way or to agree or to appear to agree with your view that you are arguing for. So, here, the *ad baculum* works because there is a shift from the critical discussion to a deliberation type of dialogue where you are, in effect, arguing to me by pointing out that a particular conclusion would be prudent for me, because if I don't carry out this particular action, then something bad will happen to me, and you will see that it will happen.

In this kind of case, even though the threat may be transparently irrelevant, nevertheless, it may be effective in the sense that it may get me to carry out some action or to comply with your view. But, in this kind of case too, there has been a shift from the one type of dialogue to the other, which is interesting and useful to see when evaluating the *ad baculum* argument. In this kind of case, the conversational exchange between us was supposed to be a critical discussion about some particular issue, but then, when you issued a threat to me to accept a particular conclusion, the basis of my accepting or going ahead with the course of action that you were trying to get me to go ahead with was based on some other type of dialogue. For example, possibly it could be a deliberation exchange where you are telling me if I don't take a particular course of action that something bad will happen to me. In such a case, therefore, you are arguing in a sequence of deliberation, that it would be prudent for me to undertake this particular course of action. So in this case there has been a shift from a critical discussion to a deliberation type of

dialogue. So no matter how you evaluate the *ad baculum* argument as a fallacy, or a failure of relevance, it is important to see in different cases how the *ad baculum* argument works as a deceptive tactic in argumentation that involves a shift from one type of dialogue to another.

4. Ad hominem Arguments

Another type of fallacy that is important to evaluate is the *argumentum ad hominem*. Basically, this type of argument is the use of personal attack by a proponent against a respondent in a dialogue exchange of a kind where the proponent alleges that the respondent has a bad character, and then uses this premise to argue for the conclusion that the proponent's argument should not be accepted as plausible. The link between the premise and the conclusion in this type of argumentation is that the proponent is said to have a bad character and, therefore, the argument is that he should lack credibility as a spokesperson for the argument he has used in the case in question. So, the *ad hominem* argument has three stages of parts, each one of which is essential to it as a type of argument. First, it attacks the person's character. Second, it uses this attack as a basis for attacking the person's credibility as a spokesperson for his argument. And then, at the third stage, the *ad hominem* argument uses this attack on credibility to draw the conclusion that the argument which had been put forward by the proponent should not be regarded as a plausible argument.

A personal attack is very common in everyday conversations, and we should not regard personal attack just by itself as necessarily being an *argumentum ad hominem*. The *ad hominem* argument is the use of personal attack by one party in a dialogue exchange to discredit or to try to refute the argument of the other party. Thus, we see that, in order to define the *ad hominem* argument as a distinctive type of argumentation, it is necessary to do so in a dialectical framework. That is, it is necessary to see the *ad hominem* argument as part of a conversational exchange between two parties, where the one party tries to refute the argument of the other party by discrediting the other party's character.

The basic type of *ad hominem* is the so-called abusive or direct type where the one party directly attacks the character of the other party as a basis for refuting the other party's argument. The circumstantial type of *ad hominem* argument is more complex. In this type of argument, the one party cites a pragmatic inconsistency in the commitment store of the other party. In this type of argument, the one party charges that the other party doesn't practice what he preaches. At least, this is characteristically the thrust of the circumstantial *ad hominem*. The attacked party is said to be pragmatically inconsistent, in the sense that he advocates a particular argument but then, in his personal circumstances or personal conduct, does something that conflicts with this argument.

The classic example of the circumstantial *ad hominem* argument is the smoking case outlined in Walton (*Informal Logic*, 1989, pp. 141-143). In this case, a parent argues to her child, "You should not smoke, because smoking is unhealthy." As part of her argument, she cites strong evidence of a link between smoking and chronic obstructive lung disease. She may show the child, for example, slides of a patient who has been a smoker who has chronic lung disease, and present other kinds of medical evidence linking serious health disorders to smoking. The parent then concludes, as part of her lecture to the child, "Smoking is unhealthy, so you should not smoke." The child, however, rejects this argument, observing that the parent herself is a smoker. The child replies, "You smoke yourself, so I reject your argument against smoking." In this case, the child may have a good premise—that is, let's assume that the parent does in fact smoke, and admits to being a smoker. In such a case, the child has correctly observed this fact about the parent, lined it up with the parent's argument, and found a practical conflict. The parent says that smoking is bad and that you should not smoke, but the parent herself smokes. So the parent's argument is in conflict with the parent's own personal practices or actions. So the child, being a child, observes this personal fact about the parent, and very quickly concludes that the parent's argument against smoking is worthless.

Now, the logical problem with the *ad hominem* argument in this particular case is that the child hastily rejects the parent's argument. Observing the practical conflict would be a good basis for asking the parent critical questions, such as, "If you think that smoking is unhealthy, and you are a person who wants to be healthy, then why do you yourself smoke?" Confronted with such a question, the parent may be able to give a reasonable reply. The parent, for example, might reply, "Well, yes, I realize that smoking is unhealthy, and I've many times tried to give it up myself, but it is addictive and, even though I'm still trying to give it up, I haven't succeeded yet. So, that's an even stronger reason for not smoking. It is an addictive habit, and once you start, it is very difficult to give up." Now, this kind of response might be logically satisfactory.The parent still admits to a conflict, but nevertheless, the conflict is, at least to some extent, understandable. One could reason that the parent might still have a strong argument against smoking—that is, all the medical evidence presented by the parent to the effect that smoking is associated with many health disorders,might be a very reasonable argument. So the child may be making a big mistake in rejecting this argument (based as it is, let's say, on good evidence) too hastily.

One could see, in this kind of case, that evaluating the *ad hominem* argument by means of the pure semantic form of the argument would be inadequate. What needs to be taken into account is the context of dialogue in the exchange between the child and the parent. Looked at in context, the argument can be taken in two ways. Taking the parent's argument in a more impersonal way, her conclusion that smoking is unhealthy could be based on

the reasonable evidence that she has presumably presented in this case. Therefore, the child's dismissal of *this* argument could be a hasty and premature move. However, the child *does* have a basic point in that actions *can* speak louder than words, and the parent's words run contrary to her actions. However, if the parent can give the child a defense or explanation of her position, then the child might still have questions about the inconsistency but would not be justified in rejecting the absolute or impersonal conclusion of the parent's argument to the effect that smoking is unhealthy. The basic error in this hasty rejection type of response is the confusion between interpreting the conclusion of the parent's argument in an absolute way, and interpreting it in a relative or personal way. Hence, as shown in Walton (*Informal Logic,* 1989, p. 144), it is necessary, in evaluating this case, to distinguish between different stages of the sequence of the dialogue in the conversation between the parent and the child, and to evaluate the various moves that took place at these stages in relation to the prior moves made by the other party.

5. Evaluating Relevance and Fallacies

Generalizing to other cases, the pragmatic question of whether an argument is dialectically relevant in a given case needs to take six kinds of factors into account. The first factor is the type of dialogue. If it is a critical discussion, then the argument needs to be judged as relevant or not in relation to the issue of the critical discussion. However, an argument that is relevant in a critical discussion might not be relevant in another type of dialogue, for example, in a negotiation or an inquiry.

The second factor is the stage the dialogue is in. An argument or other kind of move, like a question, that was relevant at *one* stage of the dialogue may not be relevant at a later or earlier stage.

The third factor is the goal of the dialogue. Relevance is generally determined by the goal of the type of dialogue in question. If the type of dialogue is supposed to be that of a critical discussion, then it is supposed to resolve a conflict of opinions between the two parties. This conflict is the *issue* of the discussion, and an argument, or other move in a case, will be relevant insofar as it materially bears on this issue—that is, insofar as it can be used to advance the line of argument on the one side or the other of this issue.

The fourth factor is the type of argument that is involved. In Walton (*Argumentation Schemes,* 1996), many different types of arguments (or forms of argument) other than the traditional inductive and deductive types are defined. These types of arguments are said to be *presumptive* in the sense that their function is to effect a balance of considerations in a dialogue exchange of argumentation between two parties. For example, if an argument takes the form of an appeal to expert opinion, then whether that argument is relevant or not will depend on the argumentation scheme for the argument from expert opinion. This argumentation scheme has several distinctive premises. For one

thing, it postulates that the speaker is citing some person or source that is said to be authoritative in a given field of domain or knowledge, and there is a secondary premise to the effect that the proposition being advocated as true falls within this domain. So whether or not an argument is relevant in a given case will depend on that argumentation scheme. And if a reply to an argument is to be judged relevant or relevant in a given case, then that judgement will depend on the types of critical questions that are appropriate for that argumentation scheme. In Walton (*Argumentation Schemes*, 1995), sets of critical questions for each of these various argumentation schemes are identified. The critical questions define the appropriate kinds of replies for that argumentation scheme as used at some point during the sequence of argumentation in a type of dialogue.

The fifth factor is the prior sequence of argumentation in the given case. When we are judging whether an argument is relevant or not in a given case, it may depend on what sequence of argumentation has gone before in the dialogue. Thus, in a given case, if there is textual evidence of the prior sequence of argumentation indicating, for example, the commitments of an arguer, this text will be an important source of evidence of relevance or irrelevance in evaluating the case.

The sixth factor is the institutional or social setting of the particular case which may impose particular constraints or rules on what is acceptable in a conversation or not. For example, if the argument is part of a legal trial, then there will be specific legal rules that will define what is considered relevant or not in that particular case. Or if an argument is part of a political debate in a legislature, then there will be rules of procedure which the speaker of the house is supposed to enforce, and these rules of procedure will affect, at least from the point of view of the legislative debate, whether a particular argument will be considered as relevant or not. So from a point of view of informal logic, it is somewhat debatable the extent to which we should take these special contexts and social settings and disciplines into account in evaluating arguments. It is possible, for example, that we might evaluate a debate in a legislature from the point of view of a deliberation, without worrying too much about the procedural rules of legislative debate that would bear on it. On the other hand, we can't ignore these social or institutional rules, in some cases, because they can have an important effect on whether a line of argument really is appropriate or relevant in that particular situation or not. So, this sixth kind of evidence will be a factor that needs to be taken into account, to some extent, in at least some cases of the kinds of arguments that are typically evaluated in logic textbooks.

So when we evaluate an argument with respect to whether it is relevant or not, or whether it commits certain informal fallacies or not, using these six sources of evidence, we are evaluating it from a communicative, pragmatic and dialectical point of view. Evaluating it from this point of view, the argumentation is seen as an organized sequence of connected moves that are (generally)

questions and replies taking place in a dialogue exchange between two parties. Adopting this communicative framework of evaluation means we do not see an argument simply as a localized set of premises and a single conclusion, and evaluate it in relation to some appropriate logical form, like *modus ponens*. Instead, we are evaluating the argument dynamically as a contribution to a longer sequence of argumentation which is aiming towards some goal that is appropriate for a type of dialogue that the two participants are engaging in. Whether the argument is correct or not, and whether it is relevant or not, will depend not only on what type of dialogue the participants are supposed to be engaged in, but also on what particular stage and move of the dialogue this particular argument is supposed to be made at.

The problem with evaluating arguments from this pragmatic perspective is that so many of the examples in the standard treatment of the textbooks in the past have been very brief. Consequently, very little idea is given of the context in which the argument is being used. What we have to do in such a case, then, is make a conditional evaluation based on assumptions about how the argument was being used by a proponent to make some point in a context of dialogue. So what would help is if the textbooks were to choose as illustrative examples of the various fallacies longer arguments where the context of dialogue is more fully filled out. Then the students (or textbook users) could get used to the idea of examining a text of discourse in a pragmatic way to identify the sequence of moves made by the two parties and to identify other important parts of the evidence, including the commitment of the two parties, how these commitments have been retracted and so forth. This point of view tends to make the analysis of fallacies more difficult. We can no longer take a dismissive approach to the fallacies, arguing, for example, that because such-and-such is an *ad hominem*, we can automatically discount it as fallacious. Instead, we have to now examine arguments on a case-to-case basis, and if we identify an *ad hominem* argument, then we have to identify not only the argumentation scheme corresponding to it, but the critical questions that can be used to reply to it; we need also try to get a good picture of the sequence of argumentation it was used as a part of. In such a case, it is also very useful to know more about the source the argument was taken from. Was it taken from a textbook, from a newspaper article, from an editorial or from a commercial advertisement? These factors are extremely important in evaluating the argument dialectically. One should note, here, that commercial speech in advertisements, for example, would have to be evaluated quite differently from, let's say, an argument that has been used in a political debate or in a philosophical discussion. These arguments would have to be evaluated differently because the purpose of the argument is different and because the methods used to achieve that purpose will, of course, be quite different in a different type of dialogue.

6. The New Theory of Fallacy

Generally, the failure with informal logic or critical thinking in the past, as cited in Hamblin's use of the phrase "standard treatment," is not that the textbook treatments were wrong, or even that they failed to be innovative or interesting. The basic problem was that they lacked a theory that was in any way useful to systematically evaluate argumentation of the kinds associated with the various fallacies. The problem, in a nutshell, was the lack of a theory. Logicians tended to think of arguments in the traditional way—postulated by Aristotle's syllogistic and by the mathematical models of deductive logic—as being a localized set of premises and conclusion. And the typical way of evaluating such an argument was to portray it along the lines of the deductive types of argumentation modelled in formal logic, like *modus ponens*. However, we can see from the sketch above that the new approach to critical thinking needs to take a more comprehensive approach to evaluating an argument as a communicative exchange embedded in a context of discourse which constitutes a case. The argument then should be evaluated with respect to how it has been used for some purpose in that case. So in order to approach a given case where an argument has been used, we have to formulate some normative assumptions about the type of dialogue the argument was ostensibly used as a part of. This method of evaluation is quite different from the methods postulated by traditional formal logic, where a local argument with a set of premises and conclusions was focused on, typically an argument with one conclusion and one or two premises. This local focus appeared to obviate the need to give much serious attention to the broader context in which the argument was used to make some kind of point. It also appeared to justify the neglect of informal fallacies.

According to the new theory (Walton, *Pragmatic Theory*, 1995, p. 255), fallacy is defined as an argument or a move in argument that interferes with the goal of a dialogue of which it is supposed to be a part. That is, it is a presumption of the new theory that a fallacy is an argument (or move in argument) which is used in a context of dialogue that is a conversational exchange in which two parties are taking part. But it is used in such a way that, not only does it not contribute to the goal of the dialogue, but it positively interferes with the realization of that goal. Thus the new definition of fallacy is related to Grice's cooperative principle which states that any contribution to a conversation must be "such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange." (Grice, 1975, p. 67)

A fallacy then, is an argument that not only falls short of the requirement of the Gricean cooperative principle, but positively interferes with the implementation of that principle in a dialogue. It is important to make a distinction here between a fallacy and a blunder. A violation of Grice's principle can be simply a blunder where, for various reasons, participants can fail to communicate. In some cases, a blunder can even be an argument that is put

forward badly or that is incorrect because it is based on a misunderstanding of the other party's point of view. However, not all blunders are fallacies. A fallacy is a serious underlying baptisable type of error (Johnson, 1987), or inappropriate move in dialogue, that goes against the cooperative principle. A fallacy can be an error of reasoning in some cases, as in statistical fallacies, for example. But in many cases, a fallacy is the use of a deceptive tactic of argumentation to try and get the best of a speech partner unfairly. An example of this sophistical tactics type of fallacy would be an *ad hominem* personal attack that inappropriately tries to disqualify another person from taking part in a dialogue by arguing that that other person has a bad character for veracity and concluding that, therefore, nothing they might say could ever be trusted as a credible contribution to the dialogue. This variant is sometimes called the poisoning the well subtype of *ad hominem* fallacy.

In accord with this new viewpoint on the concept of fallacy, the definition of the concept of a fallacy put forward in Walton (*Pragmatic Theory*, 1995, p. 255), has five clauses. A fallacy is, first of all, an argument or at least a move that occurs in an argument that takes place between two parties. Second, the fallacy is a move or argument that falls short of some standard of correctness or appropriateness for such a move. Third, a fallacy is a move or argument that is used in a type of dialogue in which the two participants are supposedly engaging. Fourth, a fallacy is an argument that is so used, and that has a semblance of correctness, or that appears to be correct, that nevertheless, under the surface, is incorrect. Fifth, a fallacy is an argument or a move in an argument of the above type that poses a serious obstacle to the realization of the goal of the dialogue in question.

So according to the above definition, a fallacy is not necessarily, in all cases, a fallacious argument. For example, a question can be a fallacy, as in the fallacy of complex question. However, a fallacy generally is an argument or a move used in argumentation, so that in the case of the fallacious complex question, the question is used in an argumentative exchange in such a way as to unfairly try to get the best of other party.

For example, if someone asks you the question, "When did you stop cheating on your income tax returns?," this question could be used in a fallacious way. But it depends on the context of a dialogue for the particular case being studied. If this question were asked to a witness or a defendant in court, where this person had previously admitted to the attorney that he had, in fact, cheated on his income tax returns in the past, then it could be perfectly appropriate to ask him when he stopped cheating on his income tax returns. In this context, asking such a question would not be fallacious. However, in another case where the person being questioned does not admit that they have cheated on their income taxes in the past, and does not feel that they are guilty of such a crime, and is not committed to having done that, then the posing of this particular question is a difficulty because a direct answer to the question requires citing a time at which the respondent stopped cheating on income tax

returns. So the respondent can't give a direct answer to the question without incriminating himself, that is, without agreeing to presuppositions within the question that would be incriminating to his side of the dialogue. So in a case like this, the respondent has to question the question, or even more strongly, to rebut the presumptions inherent in the question. So in this kind of case, we say that asking such a question could be fallacious in the sense that it is an inappropriate move at a particular point in the sequence of argumentation in the stage of a dialogue—if the questioner hasn't already secured the respondent's commitment to the proposition that he has cheated on his income tax at some point in the past. If the questioner has not secured acceptance to this proposition in the prior sequence of dialogue, then asking this question with the expectation of getting a direct answer would be too aggressive an approach. It would frustrate the respondent's ability to get a fair hearing, or to make known his point of view that he never admits having cheated on his income taxes at all. So in this sense, the asking of such a question, even though it isn't an argument, is an argumentative move in a dialogue of such a type that blocks or interferes with the proper sequence of question-reply responses needed to complete the dialogue successfully. It interferes with the respondent's ability to give a straight answer, and in this sense, it could be evaluated in a particular case relative to the text and context of the dialogue for the case as a fallacious move or a fallacy.

In most cases, however, the kinds of arguments that have traditionally been designated by the textbooks as informal fallacies are, in fact, types of arguments (like the *ad hominem* argument) that have an argumentation scheme representing the form of that argument. But, when we say that argument has been used in such a way that a fallacy has been committed, we do not just mean that the argument has been insufficiently supported so that one of the premises hasn't been justified or something of that sort. To call the argument fallacious is a stronger criticism, implying some kind of serious underlying error, or a use of the argument as a sophistical tactic to try and unfairly get the best of the other party. Very often, arguments like the *ad hominem*, *ad baculum* and other typical kinds of arguments associated with fallacies are extremely powerful in ordinary conversational exchanges, and may be used to try to block off the capability of the respondent to take part in the subsequent dialogue meaningfully at all by asking further questions or by making challenges. This is the kind of case in which it is appropriate to call such an argument fallacious, because the argument so used is more than just a blunder or a violation of a rule for a type of dialogue. It is a sophistical tactic which is used to try and get the best of the other party unfairly, in many cases, even by blocking the capability of the other party to take further meaningful part in the dialogue at all.

Thus, according to the new theory, when we evaluate an argument like an *ad hominem* argument or an *ad baculum* argument, we first of all identify the argumentation scheme for that type of argument, and then ask whether, in fact, the argument as given meets the requirements for the argumentation

scheme. If this test is passed, then the next question is whether the premises of the argument have been adequately supported, so that the argument shifts a weight of plausibility towards the conclusion, making it necessary for the respondent to give a reply, unless he wants to accept the argument. So the first question is one of the structure of the argument. Is the inference from the premises to the conclusion of a legitimate type? The second question is whether the premises are adequately supported, so that we can say that the conclusion is justified up to the requirements needed for that type of argument as used in that context. So if the premises are not adequately justified by the right kind of evidence in a given case, we can evaluate the argument as being weak or not sufficiently justified in that case in relation to the requirements of burden of proof appropriate for that type of argument and context. But if an argument is weak or not sufficiently justified to make the conclusion acceptable, it does not necessarily follow that the argument has to be fallacious. On the contrary, there are lots of arguments that are weak, but are not fallacious. For an argument to be shown to be fallacious, it has to exhibit a serious and underlying structural kind of error, or use of a sophistical tactic of deception of a baptisable and recognizable type. And the bottom line criterion of whether the argument is fallacious in the given case, as opposed to being merely weak or insufficiently justified, is whether or not it interferes with the goals of the dialogue in which the argument was used in a given case. So the difference here is between an argument that merely fails to contribute anything material (or enough support that is material) to the dialogue, by providing sufficient reason to accept the conclusion, and the other type of case where the use of the argument is of such a nature that it interferes with the dialogue in some systematic way.

7. Profiles of Dialogue

According to the new theory, an argument is fallacious on the grounds that it interferes with the goal of dialogue by interfering with the capability of the respondent to properly reply to that argument in the normal sequence of question-reply dialogue. Such failures were demonstrated in the cases of *ad baculum*, *ad hominem* and complex question fallacies outlined above. Thus the tool to analyze a particular case to determine whether a fallacy has occurred or not in that case is the method of profiles of dialogue. The method of profiles of dialogue was set up in Walton (*Informal Logic*, 1989, pp. 68-69) to evaluate cases of the fallacy of many questions. A profile of dialogue is a sequence of questions and replies connected in a chain of argumentation in a dialogue indicating the appropriate moves and their order. A profile of dialogue represents an ideal of how an argument *should* go if it is correct, that is, if it does contribute to the goals of a given type of dialogue in an appropriate way at each stage of the sequence. Profiles of dialogue can also be multiple in that they can represent different alternative ways an argument could be correctly used at a given stage of dialogue.

Krabbe (1992, p. 277) describes profiles of dialogue as follows: "Profiles of dialogue are tree-shaped descriptions of sequences of dialectic moves that display the various ways a reasonable dialogue could proceed." According to Krabbe, the method of profiles is practically useful because it enables one to evaluate cases where a fallacious use of argument is suspected without having to go through all the technical work that would be required for a complete systematic analysis of a dialogue system as applied to that case. The simplest example of a profile of dialogue is the sequence of moves outlined in Walton (*Informal Logic,* 1989, p. 38), in the type of case characteristic of the fallacy of many questions. This profile of dialogue takes the form of a tree, and at one node in the tree, is the question, "When did you stop cheating on your income taxes?" At the nodes above that question are the various presuppositions of the questions, for example, that the respondent has, at some time in the past, cheated on his income taxes. At the nodes below the question are the appropriate kinds of responses that could be given to that question if asked in a dialogue exchange. The profile is then used in order to evaluate a case by applying the ideal sequence to the actual sequence of questions and replies that is used in the case, or that would correctly describe a dialogue-supportive chain of reasoning in the case. Then the discrepancy or failure of matching between the ideal profile and the actual sequence of argumentation used in the case can be used as an evidential basis to pin down (or at any rate, to evaluate) a charge of fallaciousness in a case.

What we see, then, through the use of the method of profiles of dialogue, and other new methods of informal logic, is that an argument is now analyzed as a dynamic sequence of question-reply exchanges in a dialogue. No longer is an argument viewed as a very short, one-stage event with two or three premises and single conclusion. Instead, there is a sequence of reasoning. We have some premises and a conclusion, and then that conclusion becomes one premise in another sub-inference that leads to a second conclusion. And in turn, that conclusion becomes part of a group of premises that leads to a third conclusion. So by chaining arguments together, we get a sequence of reasoning, and then the question of evaluating an argument in a given case is sought in examining how the sequence has been used to aim at a certain conclusion which represents the ultimate issue in the type of dialogue the participants are supposed to be engaged in. In such an evaluation, the sequence of argumentation has a direction. It can move in one direction or another direction. It can be aimed towards the resolution of the problem or issue that is supposed to be addressed—and in that case, it will be a relevant argument—or it can move off in a different direction and be a digression, in which case it would be evaluated as irrelevance or an irrelevant argument. But we are no longer evaluating an argument as a single-step event with just one conclusion and some small set of premises. Instead, we have to look at how the argument is being used as part of a dynamic sequence of reasoning that is being aimed at some particular goal which is appropriate for the type of dialogue in which the participants are taking part. So in this sense, the new methods of informal logic are dynamic

and pragmatic. They are also dialectical in the sense that an argument will not be just looked upon as a set of propositions that have truth values. From this new point of view, an argument always has to be judged in the context of a dialogue exchange between two parties. So evaluation of argumentation according to these new methods is dialectical, and the argument is judged as correct, weak or fallacious on how it contributes to the dialogue exchange.

8. The New Way of Evaluating an Argument

With this new approach to informal logic, the nature of the evidence required to evaluate an argument has changed significantly from the old traditional view of logic based on the formal deductive model. According to the requirements of the new way of evaluating an argument, what will be very important is the text of discourse in which the argument actually occurs. So it will be much better, generally, to look at an argument as being situated within a broader text of discourse. It could be a few lines. It could be a page. It could be a whole book. Of course, in many of the kinds of cases that we study in logic courses, there's not time or interest in looking at such an abundant amount of evidential detail. So, what we need to do is to provide case studies that are based on a broader text of discourse—that is, that are more realistic than the typical kinds of cases that are studied now—but that are, nevertheless, not so detailed that they overwhelm our ability to deal with them within the confines of the kind of pedagogical situation that we need to deal with.

In particular, certain kinds of evidence from the text of discourse are very important. The commitments of the respondent and of the proponent, as known from the text of discourse, are often crucial in determining whether a fallacy can be properly said to have been committed in a particular case. An obvious instance to cite here would be the straw man fallacy. The straw man fallacy is typically defined as the distortion or exaggeration of an opponent's position in order to make it appear unbelievable or easy to destroy. An example would be a case where someone is refuting an environmentalist by claiming that this environmentalist argument requires the world to be "a pristine place with no imperfection or human habitation or industry." Now in order to analyze a case like this of the straw man fallacy, or a case where the straw man fallacy has allegedly been committed, clearly one has to take a close look at what the environmentalist's position really was as stated in the prior sequence of argumentation. One has to quote, if possible, from the environmentalist's own description of his position, or to quote from how he responded to cross-questioning by the other party. Only then can we fairly evaluate whether a straw man fallacy has been committed. So the straw man fallacy would be a very clear kind of instance in point that would show that a pragmatic and dialectical analysis of the case, which takes into account the commitments of the other party as known from the evidence given in the text of discourse in that case, is a required part of evaluation.

For anyone who is discouraged by the standard treatment of fallacies in the logic textbooks at the present time, but nevertheless wants to incorporate a section on fallacies in their critical thinking course, the idea that analyzing arguments requires quite a broad collection of evidence from the text and context of discourse might be somewhat forbidding. No doubt a strong attraction of the old way of analyzing the fallacies is that one could simply dismiss arguments as being straw man fallacies or *ad hominem* fallacies without having to do much or any work collecting evidence to support the evaluation. Now however, case studies, in order to be convincing, will have to be somewhat longer and will have to make more of a serious effort to collect and systematically evaluate the evidence that can be gleaned from the text of discourse in a given case. This new approach not only implies more work, but it implies a serious effort to build case evaluations on a theory of argument evaluation which will enable a student or user to systematically carry out evaluations in particular cases. So we're talking not only about a lot of work in analyzing particular cases, but also a serious attempt to build a discipline by introducing methods that require collecting reproducible evidence to a field that has heretofore pretty well been conducted on an *ad hoc* basis.

Whether many instructors who are currently teaching critical thinking courses are willing to make this kind of effort seems questionable, given the current quality of textbooks in the area. But the effort is well worth it because the ability to evaluate arguments using a systematic collection of relevant evidence that can be brought to bear in a case is a very powerful tool. It is also a very useful tool, particularly in a democracy where citizens are expected to make decisions on the basis of critical thinking and some form of intelligent deliberation on the issues. This new tool is, in fact, so powerful that when it does become widely accepted by practitioners in the universities, it will revolutionize the teaching of all areas where an attempt is made to evaluate arguments critically, both in everyday conversational exchanges and in academic disciplines. In particular, two main targets of application of this new discipline are legal argumentation and argumentation in political debates, election campaigns, and so forth. It has been evident to many scholars in speech communication that the use of dialectical methods of argument evaluation is useful and even necessary to properly study rhetoric. However, in a critical thinking course, the goal is not to study effective persuasion, to study how to actually persuade audiences, but how to critically evaluate arguments in hindsight, so to speak, once we have the text of discourse of the argument at hand. For this purpose, we can apply the pragmatic methods of the new informal logic in order to judge, on the basis of the textual evidence given, whether the requirements for a correct use of argument in relation to a given normative model of dialogue are met. This type of evaluation may not be useful for all the purposes one might have in mind when reacting to an argument but it is extremely useful for the purpose of arriving at a reasonable evaluation of an argument in a given case as being used correctly or incorrectly.

One of the primary uses of such a theory will be educational. One of its main uses will be to instruct people on how to avoid common errors and fallacies in arguments. In fact, the fallacies have been identified as baptisable arguments precisely because they represent the common types of errors of reasoning and sophistical tactics that do trip people up in argumentation, on all kinds of important issues in everyday discourse in law courts and political debates, and on other venues where issues are appropriately decided on the basis of argumentation. So constructed, the new discipline of critical thinking, informal logic, communicative logic, or argumentation theory, whatever you want to call it, will become a powerful instrument for the critical evaluation of arguments.

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