Profiles of Dialogue for Evaluating Arguments from Ignorance

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ABSTRACT: This investigation uses the technique of the profile of dialogue as a tool for the evaluation of arguments from ignorance (also called lack-of-evidence arguments, negative evidence, *ad ignorantiam* arguments and *ex silentio* arguments). Such arguments have traditionally been classified as fallacies by the logic textbooks, but recent research has shown that in many cases they can be used reasonably. A profile of dialogue is a connected sequence of moves and countermoves in a conversational exchange of a type that is goal-directed and can be represented in a normative model of dialogue. Selected case studies are used to probe special features of using the profile technique as applied to arguments from ignorance of a kind that occur frequently in everyday conversational exchanges. One of these special features is the use of Gricean implicature. Another is the need to use negative profiles of argument.

The *argumentum ad ignorantiam,* usually called 'appeal to ignorance' or 'argument from ignorance' in the logic textbooks, has traditionally been classified as a fallacy (Hamblin, 1970). But a growing climate of recent opinion - see Smithson (1988), Wreen (1989), Smets (1991), and Witte, Kerwin and Witte (1991) - sees this same kind of argumentation, variously called the lack-of-knowledge inference, negative evidence, or negative default reasoning, as nonfallacious. The problem posed then is how to determine, by some clear and useful method, which are the fallacious and which are the nonfallacious cases (Krabbe, 1995; Walton, 1996). Among the new dialectical tools being developed for this purpose is the profile of dialogue (Walton, 1989a; Krabbe, 1992), a means of representing a sequence of connected moves (adjacency-pairs) in a dialogue exchange.

The argument from ignorance is a hard type of argumentation to evaluate using the profile of dialogue as a tool, because parts of the argumentation are responses that do not occur in the sequence of exchanges. The argument from ignorance works as an inference because implications are drawn from what was not said. This feature poses a difficulty for the profile of dialogue method. And in fact, what will be done to cope with this problem is to introduce so-called negative profiles of dialogue.

Another difficulty is that arguments from ignorance are very often

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on inferences where the conclusion is drawn by suggestion (implicature, as opposed to implication) from what was said or not said in a conversation. It will turn out, in fact, that there are close connections between the *argumentum ad ignorantiam* and the Gricean notion of conversational implicature. In fact, one of the cases of the *argumentum ad ignorantiam* studied is an example given by Grice.

But so far, it has not been investigated how, or even whether, the tool of the profile of dialogue is applicable and useful for the analysis and evaluation of cases of the argument from ignorance. What were, in effect, profiles of dialogue (although that term was not in use at the time), appear to have been first used to analyze the *argumentum ad ignorantiam* in Woods and Walton (1978). In this article, dialogue sequences like the following were used to model arguments from ignorance (where *A* is a proposition).

Sequence 1: **Speaker:** Why *A*?
Respondent: Why not-*A*?

Also, forms of argument were used that could be associated with profiles of dialogue, like 'It is not known that *A* is true, therefore *A* is false.' The study of the use of these dialogue sequences and forms of argument to model different kinds of arguments from ignorance has been carried forward by Krabbe (1995) who, for example has studied dialogue sequences like the following one.

Sequence 2: **Proponent:** *A*
Opponent: Why *A*?
Proponent: Why not-*A*?

But beyond these studies, the profile of dialogue, as a tool that has only recently been named and developed, has not been applied to the analysis and investigation of the argument from ignorance.

I. PROFILES OF DIALOGUE

A *profile of dialogue is* a reconstructed sequence of connected moves in a given text of discourse in a case where an argument has been used. Such a profile is constructed by applying a normative model of dialogue to the particulars of the given case. The profile of dialogue represents a local sequence of moves that is one part of a longer sequence of moves in a goal directed conversational exchange of a certain kind between two parties. The basic components of a dialogue, according to Hamblin (1971, p. 130) are the set *P* of participants and the set *L* of locutions. By a locution-act, Hamblin means a member of the set *P* X *L* of participant-locution pairs. A dialogue is then defined as a numbered sequence of participant-locution

pairs. Hamblin (1971, p. 131) gives the following example of a dialogue having a length of three moves.

$$\langle 0, P_0, L_4\rangle, \langle 1, P_1, L_3\rangle, \langle 2, P_0, L_2\rangle$$

The general idea is that a dialogue is seen as a sequence of moves, starting from move zero, that aims towards some goal that is agreed upon by the participants in advance of any moves being made, and that follows the procedural rules that determine what kinds of moves should be made or allowed, and in what order they are allowed. The profile of dialogue is generally a fairly short localized sequence of such moves in a dialogue, and it may be picked out as any arbitrary subsequence within the longer ordered sequence of the moves in a dialogue as a whole. Thus the local sequence fits into a longer sequence, so that the local sequence can be understood and evaluated with reference to its place in that longer sequence. The profile can also indicate a range of possible moves, or a type of move that could be allowed, at the place of any single move in the sequence. The idea is that a fallacy, or other kind of problematic argument, or part of a sequence of argumentation used in a given case, can often be analyzed without having to utilize the whole structure of a formalized model of dialogue. Instead, a profile of dialogue can be used to sketch out the problem with the sequence of argumentation in a more simplified and localized way.

The profile of dialogue was used in Walton (1989a, pp. 65-71), for example, to analyze the so-called fallacy of many questions. The problem was to analyze and evaluate questions like, `Have you stopped committing child abuse?' as deceptive kinds of techniques of argumentation that can be used to entrap an unwary respondent. Such questioning techniques are known traditionally in logic under the heading of the Fallacy of Many Questions (sometimes also called the Fallacy of Complex Question - see Hamblin, 1970, pp. 38-40). The tricky thing about evaluating such questions is that they are not always fallacious. For example, in a court of law where the defendant has just admitted committing the crime of child abuse, the prosecuting attorney could ask him, `Have you stopped committing child abuse?' and the question could be quite legitimate (both legally and logically). However, in other cases, where the context is different, asking the same question could rightly be regarded as illegitimate or fallacious (as abundantly illustrated by the logic textbooks). For an account of the standard treatment of these and other traditional fallacies, see Hamblin (1970).

Specifically, in Walton (1989a, pp. 65-71), the technique of profile reconstruction is applied to a question like `Have you stopped committing child abuse?' by citing a sequence of prior questions, like `Have you committed child abuse in the past?'. Asking the first question is only appropriate in a given case if the prior questions were answered in the affirmative. Otherwise, even if the respondent does not admit having committed child

abuse in the past, he is entrapped into conceding such an admission once he gives any direct answer to the question. The question, 'Have you stopped committing child abuse?' is a yes-no question, meaning that only two direct answers are permitted-'yes' or 'no' (Harrah, 1984). By applying a profile of dialogue to a specific case in which such a question has been asked, the method of evaluation in Walton (1989a) enables a critic to judge whether the asking of the question, in that case, should be judged fallacious or not.

Techniques similar to profile reconstruction have been used in linguistics to study turn-taking in transcripts of natural language conversational exchanges (Goffman, 1981, pp. 8-9). For example in (Schegloff, 1988, p. 56), sequences of question-reply exchanges were studied to determine how a repair is made by one party to a misunderstanding apparently exhibited by the other party. Schegloff's descriptive microanalysis of naturally occurring conversations is not concerned with normative models. But his method of setting out naturally occurring sequences of dialogue exchanges does have implications for the normative study of argumentation in virtue of its use of such sequences, and of its seeing a kind of connectedness in the sequence. Jacobs and Jackson (1983, p. 60) found so-called 'adjacency pairs' of speech acts in dialogue exchanges to be special cases of more general structures of conversation involving the cooperative pursuit of social goals by the speakers. These structures can be used to explain how implicature (trice, 1975) is used by one participant in a conversation to prompt a conclusion that is inferred by the other party. Krabbe (1992) has used several interesting cases to show how profiles of dialogue can be used to reconstruct arguments so that judgments of the relevance or irrelevance of a move in a conversation can be better understood and justified, using the textual evidence given in the case.

An open question is whether the method of profile reconstruction can be used to evaluate cases of arguments from ignorance. The approach generally used in Walton (1996) could be described as a three-stage method: (i) using an implicit premise to reconstruct the argument, (ii) placing the reconstructed argument in a sequence of question-reply dialogue, and then (iii) evaluating the sequence as part of a broader context of dialogue in which the argument from ignorance was used to contribute to the dialogue. It is in stage (ii) where the profile method could be used to provide a bridge between stages (i) and (iii) of evaluating cases of the argument from ignorance. But how useful is the profile method, as applied to the argument from ignorance?

It is quite clear that the profile method is needed to analyze and evaluate cases where the fallacy of many questions (and related erotetic fallacies) are suspected, and are the source of the problem. But is the profile method of any use in cases where an argument from ignorance is the underlying kind of argument that needs to be evaluated? At first sight, it would seem that the answer is 'No,' because stages (i) and (iii) are the overwhelmingly most prominent factors to be taken into account in judging arguments

from ignorance. To show why this generalization is plausible, the best first step is to introduce a classic example of the argument from ignorance from the logic textbooks.

2. THE FOREIGN SPY CASE

The best example to illustrate how the ad ignorantiam works as an argument that can be reasonable is the classic foreign spy case (Walton, 1989, p. 45). This case is a variant of the one given by Copi (1982, p. 102), where it is cited as a nonfallacious argument from ignorance. It is also cited in (Walton, 1989, p. 107).

Case 1: Mr. *X* has never been found guilty of breaches of security, or of any connection with agents of the foreign country he is supposedly spying for, even though the Security Service has checked his record. Therefore, Mr. *X* is not a foreign spy.

In this kind of case, it is impossible to be absolutely certain that Mr. *X*, for example, is not a foreign spy. For Mr. *X* could be a `mole' - a spy who has had long access to deep cover, and who has been able to destroy any evidence that might have been used to reveal his covert activities. An example is the case of Kim Philby, the British intelligence agent who for many years concealed his covert activities for the Soviet secret service.

Even so, a plausible argument that carries some weight can be given for the conclusion that Mr. *X* is not a foreign spy, even though it is based on a negative finding. Suppose that the Security Service is a competent professional agency that has the capability for doing a security search to see if someone might be a spy, and they have in fact subjected the case of Mr. *X* to this kind of serious search. Suppose, moreover, that this search turned up no evidence at all that Mr. *X* is a foreign spy. This negative evidence furnished by the Security Service search does in fact support an argument that has the negative conclusion that Mr. *X* is not a foreign spy. A key part of the argument is the conditional premise that could be called the *depth of search premise*: if Mr. *X* was a foreign spy, the search by the Security Service would have discovered some evidence of his being a foreign spy. This implicit premise, along with the other explicit parts of the ad ignorantiam argument in case 1 shows that the form of this argument has the modus tollens type of structure found in (Walton, 1996) to be characteristic of so many cases of the argument from ignorance.

(*F. Ig. X*) If Mr. *X* is a foreign spy, the search by the Security Service would have discovered some evidence of his being a foreign spy.
The search by the Security Service found no evidence of Mr. *X*'s being a foreign spy.
Therefore, Mr. *X* is (probably or plausibly) not a foreign spy.

The conclusion of this argument can only be derived as probable (or more accurately, plausible, as having a weight of presumption) given the premises, because, as noted above, even if the premises are true, it does not follow necessarily that the conclusion is true.

A question of some concern is what type of conditional should be used to represent the 'if ... then' in the first premise of (*F. Ig. X*). Should it be a counterfactual conditional? The problem with this hypothesis is that it presupposes the falsity of the antecedent of the first premise, the very proposition the argument aims to have as its conclusion. Alternatively then, should it be a material (Philonean, or truth-functional) conditional of the kind used in classical deductive logic? This kind of conditional is always true, except in the case where the antecedent is true and the consequent is false. This alternative, which would make inferences of the form of (*F. Ig. X*) deductively valid, having the deductively valid form *modus tollens*. According to the analysis of arguments from ignorance given in (Walton, 1996), neither of these alternatives is the best way to reconstruct the form of this kind of argument. The best way is to think of such arguments as being abductive and defeasible in nature (Walton, 1996a, pp. 256-265). What the 'if ... then' says is that if the antecedent is true (acceptable), in normal circumstances, but subject to exceptions, the consequent is also true (acceptable). The best way to analyze this type of conditional is to frame it within the theory of plausible reasoning of (Rescher, 1976), following Theophrastus' Rule, which says that in a structurally correct plausible inference, the conclusion must be at least as plausible as the least plausible premise (Rescher, 1976, p. 24). The problem is, the type of inference used in the argument from ignorance, while it looks like a *modus tollens* kind of inference in its broad outline, is not literally the *modus tollens* inference that we are familiar with in deductive logic, where it is typically modeled using the material (truth-functional) conditional.

In fact none of these three possible ways of representing the conditional in the *modus tollens* type of inference used in arguments from ignorance is by itself, adequate to model the structure of the reasoning involved. As shown in (Walton, 1996, chapter 5), the form of the argument from ignorance needs to be seen as being inherently epistemic or dialectical in nature. The epistemic, or knowledge-based version of the form given in (Walton, 1996, p. 147) is (*KBS*), where *D* is a domain of knowledge and *K* is a knowledge base in a given domain.

(*KBS*) All the true propositions in *D* are contained in *K*.
A is in *D*.
A is not in *K*.
For all *A* in *D*, *A* is either true or false.
Therefore, *A* is false.

This form of argument can be deductively valid for some domains *D*, specifically in cases where *K* is closed (the closed world assumption -

Reiter, 1981). But more commonly, it is an inconclusive and presumptive type of inference that defeasibly shifts a weight of plausibility from one side of a dialogue to the other (Reiter, 1987).

The type of argument represented by *(F. Ig. X)* is presumptive in that it licenses a certain path of action on a presumptive and defeasible basis in a practical deliberation. If Mr. *X* has passed the investigation by the Security Service then he can be given a particular level of security clearance that entitles him to look at certain documents, and so forth. But if any new evidence should come in that might indicate that Mr. *X* is or could be a foreign spy, this provisional conclusion on how to act with regard to Mr. *X* would be defeated or withdrawn. According to the account given of the ad *ignorantiam argument* in Walton (1989, p. 45; 1996) this type of argument can be reasonable in some cases, but it is a plausibilistic form of reasoning that depends for its evaluation on features of context. Everything depends on the burden of proof in the given case, and the kind of evidence required in the context of dialogue to meet this burden of proof.

But the role of the profile of dialogue, as a tool required for the evaluation, is far from obvious in this case. What seems to be required is the identification of the form of the inference *(F. Ig. X)* and then the evaluation of that form as applicable to the stage the inquiry is in. What is very clear is that stages (i) and (iii) of the method of evaluation of Walton (1996) are required to properly evaluate the argument from ignorance as used in this kind of case.

So what about stage (ii), that of evaluating the inference within the local sequence of questions and replies where the argument from ignorance was used in the dialogue exchange in a given case? Does the profile of dialogue have any place of importance at all with respect to the argument from ignorance? To see just where and how the profile of dialogue fits in, with respect to cases of arguing from ignorance, two new cases need to be considered.

3. THE INJURED BATTER CASE

The following case was heard on a radio sports report (CJOB, June 1, 1995) of events in a baseball game. The wording given is not a direct quote, and is a reconstruction by recall of what was said.

> Case 2: A sports story broadcast on the media concerned an incident where a'player had thrown a pitch that hit and injured a batter. The injured party claimed that the pitcher had intentionally hit him with the ball. The media report added: 'And the pitcher [Mr. So-and-so] did not deny the allegation.'

The implicature drawn from this last sentence is that Mr. So-and-so's failure to deny the allegation can be taken as presumptive evidence that he did intentionally hit the other player. The presumptions are that Mr. So-and-

so was asked the question of whether he denied that he intended to hit the batter or not, and that he failed to deny that he intended to hit the batter. Once these presumptions are set in place, the hearer is meant to draw a conclusion concerning the significance of this failure to deny.

The profile of dialogue modeling this reconstruction of case 2 could be represented as follows:

Profile 1

Questioner: Did you intentionally hit the batter with the ball?
Respondent: [Any response other than a denial of the proposition that the respondent intentionally hit the batter with the ball.]

The respondent's reply, in this profile of dialogue could be any statement, like 'The batter deserved to be hit,' which fails to give a `no' answer to the yes-no question, but which strongly implies that the speaker concedes that he intentionally hit the batter Or it could be an irrelevant reply, like 'It's a beautiful day today.' Even this reply constitutes a failure to deny the allegation contained in the question, warranting the drawing of an implicature (although not as strongly as with the previous reply) in the form of an inference to the conclusion that the speaker is allowing some weight to the assumption that he hit the batter intentionally.

In this case, the profile of dialogue, as open as it is, sets up a framework that can be used to justify an argument from ignorance. The *ad ignorantiam* argument in such a case could be put in the following form.

> If the pitcher did not hit the batter intentionally, then when asked whether he intended to hit the batter, he would deny he intended to hit him.
> When questioned, the pitcher did not deny that he intended to hit the batter
> Therefore, the pitcher must have hit the batter intentionally.

This negative evidence argument has the kind of plausibilistic *modus tollens* form characteristic of typical *ad ignorantiam* arguments: 'if *A* then one would normally expect *B;* not *B;* therefore (plausibly) not *A*'.

The argument, in this case, is a reasonable *ad ignorantiam* argument, provided (i) it is taken as a defeasible argument that shifts a small weight of presumption towards the truth of the conclusion, given the truth of the premises, and (ii) the presumptions are correct that the pitcher was actually asked the question, and responded with a failure to make a denial, in accord with the premises stated in the profile of dialogue reconstructed above. There are two ways such an argument can go wrong. One is the failure of one or both of the premises to be justified, in a given case. The other is the failure to correctly assess the weight of plausibility that should be accorded to the conclusion on the basis of the acceptability of the premises.

The concern about presumption (ii) is the ambiguity of the announcer's final statement in case 2. This sentence could mean any one of several things: (a) the pitcher was asked the question, and when asked, he failed to issue a denial. Let's call this version of the dialogue exchange interpretation (*a*). Another type of dialogue representation is also admissible. Let us call it interpretation (*b*): the pitcher was never asked the question, but he failed to come forth and volunteer a denial, of his own accord. If (*b*) is meant, the argument is much weaker. Moreover, because of the ambiguity, the last statement of the announcer's could arguably be cast as suggesting a fallacious type of *ad ignorantiam* inference.

According to interpretation (*b*), the proposition `The pitcher did not deny the allegation that he hit the batter intentionally.' is true, but it is only true by default. He didn't deny the allegation means, `It is not true that he denied the allegation.' This proposition could well be true even if he was never confronted with the allegation, or even if he never even knew of the allegation.

A third interpretation of the dialogue is also possible. According to interpretation (*c*), the pitcher was asked *some* question about the incident. That is, there was a conversation between the pitcher and some party, and in this dialogue, as observed by the speaker in case 2, the incident of the batter being injured was discussed. But in this dialogue although the pitcher's intentions and other matters relating to the incident were discussed, the allegation was not directly put to the pitcher that he hit the batter intentionally.

Thus three profiles of dialogue are possible, depending on which one of interpretations (*a*), (*b*) or (*c*) the speaker presumably has in mind when he draws the conclusion by inference (using the argument from ignorance) that the pitcher hit the batter intentionally. Interpretation (*a*) corresponds to profile 1. Interpretation (*b*) corresponds to a different profile of dialogue, which could be called Profile 2. Profile 2 can be described only in a negative way. It is consistent with any sequence of dialogue exchanges between the pitcher and his interviewer except one in which the allegation, or even anything on the subject of the hitting incident was mentioned. By default, the denial of the allegation that he hit the batter is not included anywhere in this profile.

The third interpretation (*c*), can be represented by the following profile of dialogue, Profile 3.

Profile 3

Questioner: What do you think caused the batter to get hit? (or any comparable question other than one that makes or reports the allegation that the respondent hit the batter intentionally)

Respondent: I don't know. I pitched my fast ball, but as it turned out, the batter got hit.

In this profile of dialogue, the batter did not accuse the pitcher of hitting him intentionally, and whoever asked the question in the profile (possibly a reporter), did not make or report such an allegation. The incident may have been discussed, but at no point was the specific allegation made to the pitcher that he hit the batter intentionally. So at no point did the pitcher have to confront the question of whether he hit the batter intentionally or not. So at no point was he put in a position of having to give a yes-no answer - that is - to accept the allegation or deny it.

In profile 3, any question could have been asked, but it needs to be one that does not make or report the allegation of intentional hitting of the batter. So profile 3 is essentially negative in nature, in the sense that it can only be described as a sequence of possible dialogues by citing specifically what it excludes.

In certain respects then, this apparently simple case is quite complex. But if the right sort of assumptions are put in place, as represented by the profiles of dialogue above, the basis of the argument can be interpreted as a reasonable inference or not, depending on which interpretation is right, according to the conversation that actually took place.

However, the problem with the argumentation in case 2 is that the argument from ignorance contained in it could be used as a kind of innuendo to suggest, along the lines of interpretations (*b*) or (*c*), that the pitcher as much as admitted that he hit the batter intentionally. But this use of the argument may not be justified by the question-reply exchange that actually took place. It depends on how the pitcher was questioned, how he responded, and in particular, how his response of failure to deny matched up with the specific question he was asked. Everything depends on how that question relates to the prior questions the pitcher may have been asked in the dialogue, and how he responded to them (as modeled in the profiles).

To evaluate case 2, it is necessary to use negative profiles of dialogue as well as a positive profile of dialogue. Both profiles 2 and 3 are *negative,* in the sense that they can be represented by any exchange other than a particular positive dialogue exchange that might have taken place. Even the positive profile 1 is partly negative, in that the response is a negative description of any reply other than a particular type of reply.

It is precisely this unusual feature of the negative profile of dialogue that is associated with the evaluation of the *ad ignorantiam* type of argumentation. It is a failure to respond in a certain way that is the type of premise used to generate the inference characteristic of the argument from ignorance. But in this case it is the ambiguity among three profiles of dialogue that is a complicating factor.

4. THE CASE OF THE UNIDENTIFIED SHRUB

The following case is taken from a conversation reconstructed from memory by the author, concerning an incident that occurred on June 1, 1995.

Case 3: Hubert and Wilma were riding their bicycles around the neighborhood, and having a discussion about pruning certain kinds of shrubs in their front yard.

Wilma: Somebody told me that with this particular type of shrub, you need to cut the suckers off the ends. Then it will grow in nice and bushy, but not get too tall. Otherwise they tend to get too big and look kind of patchy and unattractive.

Hubert: Well, which type of shrub do you mean? We have two types in our front yard.

Wilma: If we go past one, I'll show you the kind I mean.

Just then they go past one of the kinds of shrubs in question. Wilma evidently sees it, but makes no mention of it. Hubert infers that this type is not the shrub she has in mind. To confirm his conclusion, he asks, `Is that the kind?' She replies, 'No. It's not that one, but the other kind.' In this case, Hubert drew a presumptive inference based on the negative evidence of Wilma's failure to respond to the sighting of this type of shrub. It could be that she didn't notice it. But if it was fairly noticeable, he might presume that she probably saw it, and infer something from this failure to respond. To test out this presumptive inference, he asks her, and his conclusion is confirmed by this positive test.

In this case, stage (i) of the analysis of the argument from ignorance is readily evident. Hubert uses the characteristic *modus tollens* type of inference to infer from Wilma's failure to mention the shrub, in the case, to the conclusion that this shrub she sees is not the one she had in mind as citing in their previous discussion. Also, stage (iii) is important, because the inference needs to be evaluated in relation to the initial dialogue Wilma and Hubert engaged in, concerning the trimming of the shrubs. The dialogue is a practical discussion on how to prune shrubs in a garden. And as the case proceeds, Wilma and Hubert are engaged in a kind of informationseeking exchange where Hubert tries to get Wilma to identify this particular type of shrub they were discussing, as they passed shrubs that may or may not be of this type.

What justifies Hubert's use of the *modus tollens* inference to the conclusion that this shrub is not one of the type previously discussed? The justification of the inference is the assumption, made by Hubert, that in light of its importance in the recent discussion of pruning with Wilma, she certainly would have mentioned identifying this type of shrub during their bicycle trip, if indeed any of the shrubs they viewed were of this type.

The previous dialogue about pruning justifies Hubert's acceptance of a conditional proposition:

> *(Cond.)* If this shrub (viewed in the bicycle trip) had been of the same type cited by Wilma in the previous discussion of pruning shrubs, then she would have mentioned identifying it during the bicycle trip.

Hubert observed that, in fact, Wilma did not mention this particular type of shrub during the bicycle trip. By *modus tollens,* Hubert is justified in drawing the conclusion that the shrub they passed during the bicycle trip is not of this particular type. Here the conditional appears to be counterfactual, but the main thing about it, for our purposes, is that it is a presumptive and defeasible type of conditional of the kind that is used to support plausible reasoning. The argument from ignorance is a plausible inference that makes the conclusion plausible, on the asumption that the premises are plausible.

Another interesting thing about this argument from ignorance is that Hubert bases it on a Gricean implicature. It is very much like the case cited in Grice (1975) of the professor, *Y*, who is asked to write a letter of reference for a student, *X*, and who fails to mention any really important skills the student is good at. The reader of the letter draws the inference that *Y* is suggesting that *X* would not be a good candidate for the position (quoted from 1996, p. 163):

> *Case 4:* *Y* is writing a testimonial about a pupil who is a candidate for a philosophy job, and his letter reads as follows: 'Dear Sir, Mr. *X*'s command of English is excellent, and his attendance at tutorials has been regular. Yours, etc.' (Gloss: *Y* cannot be opting out, since if he wished to be uncooperative, why write at all? He cannot be unable, through ignorance, to say more, since the man is his pupil; moreover, he knows that more information than this is wanted. He must, therefore, be wishing to impart information that he is reluctant to write down. This supposition is tenable only on the assumption that he thinks Mr. *X* is no good at philosophy. This, then, is what he is implicating.)

Grice explains the implicature in case 4 as a violation of a collaborative rule of conversation, the *maxim of quantity,* which expects a contribution to a conversational exchange to be neither more nor less than expected (p. 160). In case 4, *Y* says less than is expected. In fact, it is what he fails to say that triggers the respondent's questioning of what is going on. The respondent asks a number of questions: could *Y* be ignorant, could he be uncooperative? Since the answer in each case is `no,' the respondent is left to draw the conclusion that *Y* wants to suggest something he is reluctant to write down.

In case 4, the profile of dialogue is this series of questions and replies in the presumptive conversational exchange between the proponent and the respondent (the letter writer and reader, respectively). As a result of this sequence of questions and replies in the profile of dialogue, an implicature in the form of an *ad ignorantiam* argument is set up. Since *Y* failed to say anything about the good qualities of *X* with respect to the job application, the reader of the letter draws the conclusion that *Y* can be taken to be saying that *X* has no good qualities of the kind in question.

The key aspect of cases like these is that the *modus tollens* inference identifying the argument from ignorance is drawn from something that is not included, not observed, or not present. The assumption is that a particular proposition would be indicated as true by being mentioned, and that the normal way of indicating it is true is by mentioning it in a conversation. Therefore, failure to mention it is significant, and enables a respondent to draw the implicature that the proponent is communicating the message that the proposition is false. Profile 4 below, applies to both cases 3 and 4.

Profile 4

> If proposition *A* were true, the proponent would definitely mention *A* in the conversation.
> The respondent scans over the dialogue and finds no mention of *A*.
> The respondent concludes that the proponent is sending the message that *A* is not true.

This description of the exchanges between the two parties (Profile 4) indicates how the presumptive *modus tollens* inference is drawn by the respondent, in the context of the dialogue exchange.

But one aspect of the profile of dialogue is particularly important to the evaluation of the argument from ignorance used in this case. When Hubert initially draws out his inference of the *modus tollens* type, the premise is based on his observation of Wilma's failure to respond to what she evidently sees (and what both of them see). This argument from ignorance, at this point, is a typical presumptive inference, subject to confirmation or defeat by further evidence that may come into the dialogue. But then, at the next point locally in the sequence of dialogue, Hubert tests out his presumptive conclusion by putting the question to Wilma. By giving a direct answer, she confirms his hypothesis. So in this case, the argument from ignorance is verified by the next part in the sequence of dialogue. The profile of dialogue goes back from Hubert's question, 'Is that the kind?' through his previous argument from ignorance to the previous dialogue about trimming the shrubs. But it also includes Wilma's answer.

In many cases, like cases 3 and 4, the argument from ignorance is inher-

ently defeasible and presumptive in nature, precisely because the case is one where access to hard evidence is not available. But in case 4, the profile of dialogue extends the argument from ignorance to a next step, where the conclusion is upgraded from a somewhat plausible conjecture or guess to an even more plausible hypothesis. Wilma's explicit confirmation strengthens the conclusion that the shrub they had passed was not the kind she had in mind. Her testimony strengthens the plausibility of the conclusion because it introduces new evidence, based on direct testimony, instead of only on conversational implicature. In this case then, the profile of dialogue helps us to understand how an argument initially based on the argument from ignorance should be evaluated and then re-evaluated in a context of dialogue where new evidence is introduced.

5. TEXTBOOK CASES

Cases 2 and 3 reveal how the profile of dialogue is a necessary tool for the analysis and evaluation of instances of the argument from ignorance. But can we learn anything from these cases about the more common kind of case represented by the classic example of the argument from ignorance, case 1? Is the profile of dialogue a necessary, or useful tool in evaluating the argument from ignorance in case 1? Or is it even applicable to case 1 at all? And if it is applicable, where and how does it fit in? Our investigation now turns to an answering of these questions.

Case 1 is a typical case of what is called (Hamblin, 1970) the standard treatment of fallacies in the logic textbooks. Indeed, it is the classic case of the *ad ignorantiam* in certain respects, even though, as used by Copi, it is not meant to represent a fallacious use of this type of argument. The problem with such examples in the standard treatment is that they are so briefly presented that evaluations can only be suggested or hinted at, without enough contextual detail being given to enable a firm evaluation to be pinned down. What the textbooks typically do could fairly be described as a kind of 'hand waving' where the student (or user of the textbook) is left to fill in a host of missing details of interpretation of the case 5 at we see in case 1 is that it is really a generic representation of a type of case - a sketch of a common type of case. But many details which would be necessary for a firm evaluation of the argument from ignorance used in the case are left out. Such an omission is not necessarily a bad thing in every respect. It may be simply a function of the amount of time that is spent on the *argumentum ad ignorantiam* in an introductory logic course. But this aspect of incompleteness definitely needs to be taken into account in any serious evaluation of the argument from ignorance as used in a particular case of this generic sort - a quite common and important use of argumentation.

What needs to be appreciated in order to evaluate the argument from ignorance in case 1 adequately is that the information given is incomplete. To make a well-supported evaluation of the argument from ignorance, the details of the accusation against Mr. *X* need to be known, and the kinds of questions asked and answered in the investigation of these allegations need to be presented. A good example of this kind of investigation and the kinds of problems it can present is the Alger Hiss case. A serious investigation failed to unearth any evidence that Hiss was a foreign spy, after he was accused of being a Communist agent by Whittaker Chambers in 1948. The case went on for years, and despite being convicted (of perjury) in a trial, Hiss has always continued to claim that he never was a spy at all (Walton, 1996, pp. 107-110). From even a cursory examination of this famous case, one can see how the evaluation of the argument from ignorance in any real case of this sort needs to look at a body of evidence, and to carefully assess the investigations that have taken place, in light of the allegation and its particular circumstances. Case 1 is merely a sketch of a type of case. And to evaluate any real (or realistic) case of this type, details of matching a profile of dialogue to the particulars of the case would be vital. Even so, case I does fulfill a legitimate function, as a way of making a point in a textbook, by indicating how an argument from ignorance could be used nonfallaciously in a common and familiar kind of case.

In case 1, the profile of dialogue is built around the question, 'Is Mr. *X* a foreign spy?', and the context of dialogue is that of an inquiry into the background of Mr. *X* by the Security Service. The inquiry is a knowledge-based type of reasoning that begins by assembling all the known or verifiable facts about Mr. *X*, and carefully drawing conclusions about the truth or falsity of the proposition, 'Mr. *X* is a foreign spy.' If it cannot be proved from all the known, verifiable facts assembled once the inquiry is complete, that Mr. *X* is a foreign spy, then by inference it may be concluded that Mr. *X* is not a foreign spy. Or at any rate, it may be concluded that it cannot be proved that Mr. *X* is a foreign spy, so that, *ipso facto, it* has been proved (by inference) that Mr. *X* is not a foreign spy (as far as is known).

The warrant that justifies the use of the *modus tollens* inference in this case is the following conditional.

(Cond. Search) If Mr. *X* is a foreign spy, then since the search by the Security Service was thorough and complete, it would be proved that Mr. *X* is a foreign spy.

By the characteristic *modus tollens* pattern, it may be concluded that since the search did not prove that Mr. *X* is a foreign spy, he is not one.

The following profile of dialogue can be given to represent the context of inquiry in case 1.

Profile S

Inquirer:	Is Mr. *X* a foreign spy?
Security Service:	A thorough and complete security search yielded no evidence that Mr. *X* is a foreign spy.
Inquirer:	By inference I draw the conclusion that Mr. *X* is not a foreign spy.

The conclusion drawn in this case is a knowledge-based claim based on a search premise that is confirmed.

In all three cases examined, the argument from ignorance turned out to be a reasonable (but tricky) kind of argument. The method of evaluating the argument requires three aspects - identification, analysis, and evaluation. Identification of the argument is based on detecting the underlying pattern of inference of the *modus tollens* type. Part of the problem of identification of the argument is the identifying of the conditional (depth-ofsearch) premise that links the premise of ignorance to the conclusion. The evaluation of the argument involves situating its use in the given case in a context of dialogue in which some allegation or claim is supposed to be proved or disproved. The analysis of the argument involves the use of a profile of dialogue to bridge the gap between the inference of the *modus tollens* type and the global context of dialogue in which that inference is used as an argument from ignorance. The profile of dialogue reveals how the argument was used in the dialogue exchange by providing the needed details of the local sequence of questions and replies. The profile gives a normative structure representing how this sequence ought properly to have been conducted. The evaluation can then be carried out by matching the actual conversational exchange in the actual case to the standards of this normative model.

The connection of the *ad ignorantiam* argument with the Gricean notion of conversational implicature is another interesting feature revealed by these cases. Implicature introduces the additional element of collaborative rules or Gricean maxims of dialogue as devices that are used in the prompting of an implicature, and the drawing of a conclusion by an *ad ignorantiam* inference. How the dialogue rule works in conjunction with the sequence of moves in the dialogue exchange in a particular case is indicated by case 4.

Case 4 is even more complex as an *ad ignorantiam* inference than is revealed by profile 4. In this case, there are two sequences of dialogue moves functionally joined to each other to generate the conclusion inferred by the reader of the letter of reference. The first dialogue is the message conveyed by *Y*'s letter. The reader of the letter reacts to *Y*'s statements that *X*'s command of English is excellent, etc., by observing that something important is missing. The reader then asks the question, 'Why is any mention of *X*'s significant abilities missing?' This move in the dialogue

on the part of the question-asker is prompted by the conversational postulate of the maxim of quantity. To try to answer the question, the reader then engages in a solitary dialogue with himself in which he poses various possible explanations for the gap, and then systematically eliminates each one as implausible, leaving only one. The final explanation is then selected as a reasonable presumption by default. And as Grice mentions, it is tenable only on the assumption that *Y* thinks *X* is no good at philosophy.

But this second dialogue is not entirely a solitary one. The reader of the letter is trying to extract a message, by inference from the moves the writer of the letter has made in the dialogue of the letter as a communication to the reader. `The problem is one of communication. It is hard for the reader of the letter to figure what the writer of the letter is really saying, or trying to communicate to the reader. The process whereby the reader draws the conclusion that *X* is no good at philosophy is a message communicated through implicature by the writer. The vehicle of this message may be represented by the following profile of dialogue.

Profile 5

Writer: Mr. *X*'s command of English is excellent, and his attendance at tutorials has been regular.
Reader: Why do you say nothing about the significant abilities of *X* (or significant lack of such)?
Writer: [no information given]
Reader: Are you being uncooperative?
Writer: Implied message: my engaging in the act of writing the letter implies I am being cooperative.
Reader: Do you lack knowledge of the significant abilities of *X*?
Writer: Implied message: X is my student, therefore I am in a position to know the significant abilities of *X* (or lack thereof).
Reader: The only inference I am left to draw is that you are cooperatively communicating information about the significant abilities of *X* that you know about.
Writer: Implied message by default: there is no evidence given by me of disagreement with drawing this inference.
Reader: What you are communicating is the message that *X* is no good at philosophy.

The last step of inference drawn by the reader in the last move in Profile 5 is drawn by an *ad ignorantiam* argument. Since the writer has not said anything about the significant abilities of *X*, the reader concludes that the writer is communicating the message that in his opinion, *X* has no such abilities. Since the letter does not give any evidence that the proposition, '*X* has significant abilities in philosophy of the kind that would make him

a good candidate for this job.' is true, the reader is entitled (by default) to draw the conclusion that this proposition is false (or is being said to be false by the writer). Although the familiar type of inference associated with the argument from ignorance is drawn at the last move, the whole Profile 5 is a necessary part of the evidential picture required to evaluate the *argumentum ad ignorantiam* used in case 4.

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