THE FALLACY OF MANY QUESTIONS

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The objective of this paper is the analysis of what is traditionally called the informal fallacy of *many questions,* most commonly illustrated by the question (1) 'Have you stopped beating your spouse?' ([1]) which as [Hamblin, 1970, p. 38] notes, seems designed to force ordinary non-spouse-beaters into admission of guilt. The traditional name may, as [Åqvist, 1965, p. 75] suggests, be as misnomer. ([2]) Hamblin suggests that «Complex Question» seems more comprehensible. Though we will see that both names are misleading, for the time being we will continue to use the traditional one to represent our goal of analysis.

We wish to work towards considerations that would help in teaching students of logic – not only mathematical logic, but logic in the broader sense of evaluation of arguments – to be able to be in an initial position to (a) recognize the fallacy, or at least be aware of when it is likely to occur, (b) try to avoid the fallacy, or at least learn, how to render it harmless, and (c) to begin to understand, at an adequate level of clarity, what is essentially fallacious about it, i.e., to understand how it could be a form of incorrect argument, and (d) to catch a glimpse of how the fallacy is effective as a dialectical manœuvre. ([3]) But we stress – and here the reader must be careful to appreciate the precise, somewhat novel, character of the project – that the exercice is not one exclusively of pure formal logic, but in the application and adaptation of formalisms to the pragmatic study of an informal fallacy.

Of course we might be inclined to reject the stipulation that a fallacy should always be thought of as representing a form of statement-based argument that is invalid or at least incorrect. Is it not a truism that informal fallacies are in some sense «informal»? It is argued in [Woods and Walton, 1978] and [Woods and Walton 1980] that pragmatic factors are to be taken account of in the analysis of informal fallacies, and that the formalisms that can best be brought to bear may be non-standard. But the view that no formalism is at all applicable must be rejected. The study of the fallacies should not become so «informal» that classification of arguments into clear categories of 'correct' and 'incorrect' is waived. ([3]) Informal fallacies are more than

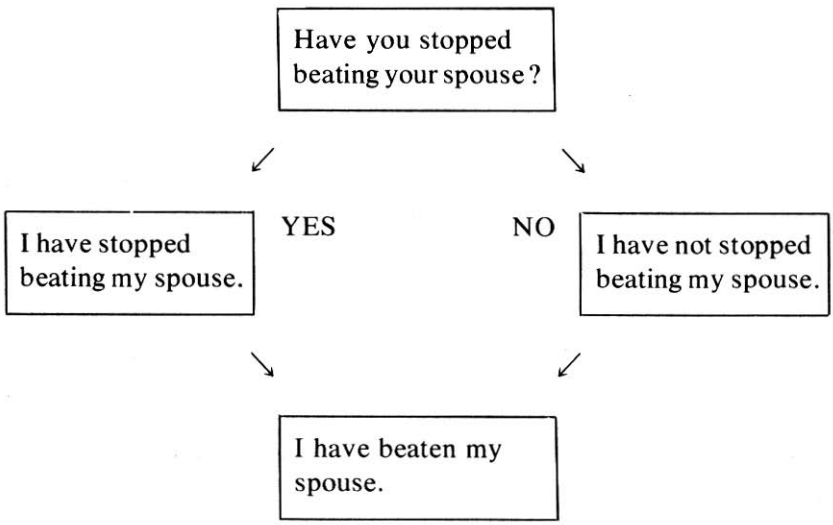
merely propagandistic devices, rhetorical plays, or psychological belief-modifiers.([5]) They are first and foremost bad arguments. And bad in a way that must be studied in an adequate basis of theory as well as practice, so that an allegation of 'Fallacy!' can be rationally and objectively adjudicated disputed, prosecuted, or defended.

I

As we will see, Åqvist characterizes the fallacy as a question that has a *false* presupposition. But this move makes the fallacy material rather than formal. Just as formal logic does not tell us in general whether premisses are true or false, but only whether arguments are valid or invalid, even fallacy theory should not be construed so broadly that it should be expected to tell us generally whether statements are false or not. Moreover, the characteristic feature of 'many questions' is not that the presupposition of the question is simply false, but rather that it is somehow unwarranted or unwelcome in the context of the argument or disputation (even if it might turn out to be true). But these notions seem to take us even perilously further outside the scope of classical formal logic. [Hamblin, 1970, p. 217] phrases this general limitation quite pointedly, in commenting on the thesis of [Åqvist, 1965, 74-75] that the fallacy is committed only by questions that have *false* presuppositions. One problem then is to see how the notion of the *unwelcomeness of a presupposition in a context of inquiry* can be formulated within a framework something like that allowed by the approaches of Åqvist, Hintikka, and Belnap and Steel to erotetic logic.

In what does the essential fallaciousness of 'Have you stopped beating your spouse?' consist? I propose that the question exemplifies an informal fallacy that is a significant error or pitfall of argument insofar as it attempts to speciously force the person to whom it is addressed into the position of signalling her acceptance of a proposition that is «unwelcome» to her, a proposition that would not be acceptable to her under the circumstances. The question 'Have you stopped beating your spouse?' in effect permits only two possible (simple and direct) answers, *yes* or *no*. But either answer implies what

is unwelcome, we may presume, to the answerer, namely that she has beaten her spouse. A simple flow chart is suggestive.



The answerer is trapped, because no matter which alternative she chooses, *yes* or *no*, she is committed to the same unwelcome implication. The fallacy is: what appears to be a genuine choice of alternatives is in reality a trap.

The above sketch represents what I will take to be the most plausible account of the gist of just what is fallacious about the alleged fallacy. The sketch does not explain the fallacy, it merely gives a plausible picture of the thrust of the intuitive fallaciousness of it. We now turn to a study of various details of the fallacy keeping this sketch in mind as a target, in order to try to bring out its deeper features more explicitly and exactly.

At the outset we must begin to recognize that there might be nothing fallacious about a question with a multiple presupposition, even though it may be reasonable to ask a questioner separate complex questions into smaller units. Moreover, there might be nothing wrong with a presupposition-containing question in relation to one specific context of disputation or inquiry, whereas the same question could be unreasonable relative to another context. For example «What did you

use to remove your fingerprints from the gun?» could be an appropriate question following a confession of homicide, but an unreasonable question where no admission of connections with firearms or crimes has preceded.

II

In this section, first we succintly introduce a series of definitions of key formal concepts of erotetic logic of [Åqvist, 1965], [Belnap, 1963], and [Hintikka, 1976], needed for the analysis to follow. The definitions are abstracted from important aspects of disputation and, as we will see, are formal stencils of complex phenomena of argument.

Åqvist's system is an epistemic-doxastic erotetic logic. That is, he reduces every expression of the form 'Is it the case that p?' to an expression of the form 'Let it be the case that either I know that p or I know that ¬p.' Hintikka's system is also an epistemic formal logic based on Åqvist's approach. However, I will omit the epistemic and imperative operators in what immediately follows – where this can be done without missing the point – reducing the illustrations to their underlying truth-funconal structure.

A *whether-question* poses a number of alternatives, of which the answerer is supposed to select one. For example: Is she wearing the red dress or the green dress? Each of the alternatives is called a *direct answer*. Any statement implied by every direct answer is called a *presupposition* of the whether-question. Take the whether-question 'Is she wearing the red dress and the purple hat, or is she wearing the green dress and the puce shoes?' In effect, the question poses an alternation of two conjunctions, i.e., it says: $(R \wedge H) \vee (G \wedge S)$? thus the direct answers are '$R \wedge H$' and '$G \wedge S$'. An example of a presupposition would be 'She is wearing a dress', because it is implied by both direct answers.

[Belnap, 1963, 127] proposes that every question presupposes that at least one of its direct answers is true. Then he rules that the proposition that at least one of its direct answers is true is called *the* presupposition of the question. A question is called *safe* if its presupposition is locally necessary, *risky* if it is not safe. For example, 'Is she wearing the red dress or not?' is safe because its presupposi-

tion as 'R $\vee \neg$R' is logically necessary. *Yes-no questions* are always safe because their presupposition consists in a pair of contradictory alternatives, e.g., the presupposition of 'Is snow white?' is 'Snow is white or snow is not white.'

The fact that the foregoing definitions are based on classical logic makes their applicability somewhat questionable in the present pragmatic context. For example, the following statement is a presupposition of 'Is she wearing the red dress or the purple hat?': she is wearing the purple hat or Plato was not an empiricist. For another example, suppose that the following is a direct answer to a certain question: if all men are mortal and Socrates is a man, then Socrates is mortal. Then the following statement is a presupposition of that question: if all men are mortal, Socrates is mortal, or if Socrates is a man then Socrates is mortal. These consequences are however no more paradoxical than the classical logic which yields the meaning of 'implies' in the above definitions. As [Hintikka, 1976, p. 27] notes, the term presupposition may have to be treated, in the context of classical formal erotetic logic, as a mere *terminus technicus*. More then about pragmatics of erotetic conditionals as we proceed.

Let us see how the fallacy of many questions can be studied on the classical basis in (1): Have you stopped beating your spouse? Following Åqvist, let W = You have a spouse and have beaten him, and S = You have stopped beating him. Then the question says: $(W \wedge S) \vee (W \wedge \neg S)$? But this is truth-functionally equivalent to the ordinary statement W. So (1) is risky. If the presupposition W is in fact false, it is impossible to give a true direct answer to (1) since W appears on both sides of the disjunction, $(W \wedge S) \vee (W \wedge \neg S)$. Thus the only sensible answer is to «correct» the question, perhaps by pointing out the falsity of W. So the fallacy arises where a question that is actually risky and moreover has a false presupposition is put in the guise of a safe «yes-no» question, according to [Belnap, 1963, p. 128] and [Åqvist, 1965, p. 66]. Syntactically, the question is safe, but semantically it is risky – a contradiction.

[Hintikka, 1976, p. 28] treats (1) somewhat differtly from Åqvist or Belnap. He notes that (1) has as presupposition the statement, '$(\exists x)$ (you stopped beating your spouse at x)' which in turn implies that before x you were beating your spouse. He describes such a question therefore as «notoriously loaded.»

It is useful to remember however that not all questions that have substantive presuppositions are fallacious. 'Is she wearing the red dress or the purple hat?' need not be fallacious if its presupposition is not concealed. So Hintikka's account does not by itself explain what is precisely fallacious about (1). Moreover, not all risky questions are fallacious that (a) have a *false* presupposition, and (b) are in the form of a «yes-no» question (or perhaps other form of question that appears safe). 'Are you the student who sat at the back and asked a question yesterday?' may be unfallacious, say if the «student» was really a disguised teaching evaluator. Certainly this question is not fallacious in the same way that our initial sketch of (1) suggested an unfair manœuvre of overly aggressive and deceptive questioning. It seems therefore that neither the Hintikka or the Belnap-Åqvist explanations are entirely satisfactory. So the Belnap-Åqvist account does not by itself explain the fallaciousness of (1) either.

Three major methods of transforming a risky question into a safe question are reviewed by [Åqvist, 1965] and applied to the spouse-beating instance of (1). Let us look at these with a view to studying how far formal erotetic constructions can help us to further approach the fallacy. In the sequel we will reformulate (1) as (2), namely, 'Have you stopped beating your (one) spouse?', for as Peter Geach pointed out to me, logic does not exclude the possibility of a polygamous situation. (1) has more presuppositions than anyone has noticed!

A. Harrah's method: replace (1) with a proper yes-no question

This suggestion is to replace (2) with (3), 'Is it the case that you have one spouse and have beaten him and have stopped?' Letting S be as before, but now changing W to 'You have exactly one spouse and have beaten him', (3) asks: $(W \wedge S) \vee \neg(W \wedge S)$? The second disjunct corresponds to the direct answer 'No', i.e., 'It is not the case that I have one spouse and have beaten him and have stopped.' We can see how this works by noting that (2) is a *fallacy* because instead of the *contradictory* alternatives posed by the proper yes-no question (3), it proposes merely *contrary* alternatives '$W \wedge S$' and '$W \wedge \neg S$' and is therefore risky, even though its resemblance to (2) may make it appear safe. Harrah's method simply corrects this deficiency in the obvious way.

One problem with Harrah's method however is that it does not allow the alternative '$W \wedge \neg S$' of the original question (2). That is, it does not allow the direct answer 'I have a spouse and have beaten him and have not stopped.' Thus it might seem more desirable to have a method that leaves all the original alternatives open.

B. The whether-whether method

A second method, one that overcomes the problem with Harrah's method, is simply to add the third alternative $\neg W$ to (2), or in other words transforming (2) into $\neg W \vee (W \wedge S) \vee (W \wedge \neg S)$? This question is safe, since its presupposition is a truth-functional tautology. Moreover, it has the advantage over Harrah's method that it preserves all the original alternatives of (2). The underlying principle in this transformation is what Åqvist calls the *Whether-Whether method*: given a risky question composed of a set of alternatives $P_1 \vee P_2 \vee \ldots \vee P_n$, simply disjoin the negation of it, $\neg(P_1 \vee P_2 \vee \ldots \vee P_n)$, to itself, yielding $\neg(P_1 \vee P_2 \vee \ldots \vee P_n) \vee (P_1 \vee P_2 \vee \ldots \vee P_n)$. The result will always have the form of a truth-functional tautology and will thus be safe. We can see that this general principle is the method we have used here in transforming (2) by noting that $\neg W$ is the truth-functional equivalent of $\neg(W \wedge S) \vee (W \vee \neg S))$. There is, however, one problem with the Whether-Whether transformation of (2). As noted by [Prior and Prior, 1965], only $W \wedge S$ (*Yes*) and $W \wedge \neg S$ (*No*) are direct answers to (1), whereas the reply $\neg W$ (I have no spouse whom I have beaten) is not so much an «answer» as a restructuring of or perhaps «avoiding» the question. As [Åqvist, 1965, p. 70] puts it $\neg W$ is only «allowed for» rather than being «called for» as a direct answer. Thus it would be nice to have a method to reflect this difference.

C. The methods of conditional guarding

Another method of dealing with (2) is to break it down into two questions: (4) Do you have one spouse you have beaten?, and (5) If so, have you stopped? In the previous symbolism, (4) is just '$W?$'. Therefore (5) might seem to have the form '$W \supset S?$'. This is not quite right however. The question, more accurately, seems to attach only to the consequent and not strictly speaking to the whole conditional. The form might be better rendered as $W \supset ?S$, putting the question operator *before* the proposition it is meant to apply to. Another

contrasting pair might make the distinction a little more apparent: (6) Is it true that if silver is metal, it conducts electricity? (7) If silver is metal, is it true that it conducts electricity? In the second case 'Silver is a metal' is a condition within the asking of the question, and is not itself being questioned as part of a larger question. Note that 'Silver is not a metal' functions differently as an «answer» in each case. It does not affect the answer to (6) at all, one way or the other. However, if true, it tends to vitiate (7) altogether, ruling out either answer. Åqvist translates (2) into his symbolism as a conditional question as

(8) $!(W \supset (K(W \wedge S) \vee K(W \wedge \neg S)))$

or equivalently

(9) $!(\neg W \vee (K(W \wedge S) \vee K(W \wedge \neg S)))$

This can be contrasted with the Whether-Whether reconstruction of (1):

(10) $!(K \neg W \vee K(W \wedge S) \vee K(W \wedge \neg S)))$

The difference here is reflected by the fact that W as antecedent of the conditional is not prefaced by a K-operator. Then Åqvist gives two methods for transforming (2) into a safe question. First, by the *Whately-Prior* ([6]) method, we transform (2) into

(11) $W\,? \wedge (8)$

Second, by the *Whether-if* method, we transform (2) into (8) by itself. According to Åqvist, this is a *conditional* method because he defines a conditional question as follows:

$$?(p_1, p_2, \ldots, p_i / q_1, q_2, \ldots, q_j) =_{df} !((p_1 \wedge p_2 \wedge \ldots \wedge p_i) \supset (Kq_1 \vee Kq_2 \vee \ldots \vee Kq_j))$$

But I think the same point may be made more simply by noting that the scope of the ? operator in the *Whether-if* method is restricted to the consequent of the conditional. Then the *Whately-Prior* method amounts to the transformation of (2) into the two questions W? and $W \supset ?S$.

The same kind of distinction we made between (6) and (7) is therefore the crux of what Åqvist wishes to show by this more refined method of imperative-epistemic transformations. He cites the examples below in the light of the discussion by the Priors.

(12) If you have a spouse you have beaten, have you stopped?

(13) If a bull were chasing you, would you climb a tree?

As the Priors put it: To say 'No bull is chasing me' would not excuse me from answering (13), whereas to say 'I have no spouse whom I have beaten' does excuse me from answering (2) and also puts an end to the inquiry.

[Belnap and Steel, 1976] introduce the *conditional interrogative* (P/I) with *condition* P and *conditioned interrogative*, I. They define these notions in such a way (p. 103) that (P/I) calls for an answer only if P is true in a given interpretation of the interrogative, and I calls for an answer in that interpretation. For example, 'If you are going, are you taking an umbrella?' calls for an answer just in case the respondent is going. Otherwise, as they put it, the question is inoperative.

Thus we can summarize the gist of the advice given by formal erotetic logic on how to deal with the spouse-beating question; rephrase it as a relativized conditional question, then if the condition 'You have a spouse you have beaten' is not met, the question can be treated as one that does not call for an answer.

This advice does not adequately explain what is fallacious about (2) however. Initially confronting the fallacy is not enough, nor have we seen clearly enough yet precisely how to identify what it is we confront that marks (2) off from more harmless questions. The sum total of this advice is that the question must be relativized to a certain condition. But we are nowhere told (i) how to identify the specific condition at issue and tell whether it is warranted, and (ii) precisely what form of conditional is to be the correct formal account of such relativization. The lesson appears to be that formal logic of the classical variety can only take us so far in the analysis of the many-questions fallacy.

III

As we have seen, the current accounts of 'presupposition' in erotetic logic are essentially based on classical implication, and this basis can result in some unintuitive consequences. [Belnap and Steel,

1976] suggest however that there are other possibilities. For example, they remark (p. 110) that the question, 'Is the present King of France bald?' could be parsed in a gappy way after Strawson, as well as in the classical way that they favour in their own account. In a free logic, we could say that 'The present King of France is bald' has a truth value only if there is now a unique French king – otherwise it is said to lack a truth value.

Still another account of 'presupposition' is epistemically oriented. Asking the question, 'How many bones in a lion' presupposes in this sense that the questioner does not know the answer but thinks that the respondent either knows or can find out. According to Belnap and Steel this last account of presupposition is *pragmatic* – it describes the questioner, the respondent, and the empirical context in which the question is asked. Therefore this account is outside the scope of the approach to erotetic logic pursued by all the erotetic studies we have so far looked at, including that of Belnap and Steel.

However, given the objectives of the present essay, a pragmatic approach is not only appropriate but positively required. For the simple fact that the presupposition of (2) is false is not by itself sufficient grounds for determining (2) as in any appropriate way fallacious. Rather the presupposition of (2) could be described as making the asking of (2) fallacious if that presupposition is not warranted or known to be true relative to the context of the interchange between the questioner and the respondent. Let us say that a presupposition of a question is *unwelcome* if, and only if, that presupposition is not established relative to a given point of a context of inquiry. We mean by 'established', known to be true by the participants in the inquiry.

When is a presupposition of a question unwelcome? The answer to this question takes us well out of the alethic framework of standard (classical) logic and puts us into the dialectical framework of [Hamblin, 1970] where we need to think of an argument as a two-person or many-person game, composed of a set of participants, and a set of rules for making moves in the sense of advancing or retracting commitments in the sequential fashion characteristic of games.([8]) Thus there may be many different doctrines of the unwelcomeness of presuppositions depending on what sort of game one has in mind and also on the purpose and interpretation of the game, the

form of argument the game is designed to model. Hamblin develops several of these formal games of dialectic that might be adapted to model varieties of unwelcomeness of presuppositions relative to a given game of argument. To me it seems clear that these games are the best basis for future research concerning unwelcomeness of presuppositions.

For several of the fallacies, notably *petitio principii* and *ad ignorantiam*, an epistemic setting seems to bring out most forcefully the nature of the particular error of inference that is involved. And of course [Hintikka, 1976] has developed epistemic logic as a powerful tool for the semantic analysis of questions. Although Hamblin prefers the dialectical to the epistemic approach because of worries about rationality assumptions, clearly Hintikka's new game-theoretic approach to epistemic logic has cleared the way for a synthesis of the two approaches. Perhaps the findings of section 1 could be enriched by looking to epistemic formalisms. A hopeful candidate is the [Kripke, 1965] semantics.

The Kripke semantics models the idea that different propositions can be established (verified) at different points in a tree-like (branching) context of inquiry. The model is *cumulative*, in the sense that if a proposition is verified at a particular point, then it must remain verified at all subsequent points of the inquiry. In [Woods and Walton, 1978], it is indicated how Kripke models can represent a useful pragmatic context for studying the fallacy of begging the question as a dialectical fallacy, and it is clear that it is also a very suggestive model to study the notion of unwelcomeness in a complex question.

We presume that given a question, we can put it into relation to a given Kripke model in such a fashion that we can think of the question being posed at some specific point (evidential situation) in the model. Each question presupposes a context of inquiry. Relative to that context, statements may be thought to be established (not unwelcome) or not established (unwelcome). The Kripke semantics, based on intuitionistic logic, models the idea that a given proposition can be established in a cumulative model of rational inquiry. The model is cumulative in the sense that, once a proposition is verified, it is always verified ever after in that model, i.e. there can be no retractions.

We remember that in classical logic, according to the Belnap-Åqvist explanation, the fallacy of (2) resides in the contradiction between (i)

the supposition that (2) is risky, i.e. that the presupposition is contingent, and (ii) the supposition that (2) is safe. However, in the Kripke model, the presupposition 'Either you have a spouse whom you have stopped beating or you do not have a spouse whom you have stopped beating' cannot be regarded as always verified. That is, in the Kripke model, $A \vee \neg A$ is not a tautology, because intuitionistic negation, $\neg A$, does not mean that A is not verified at a given point but that A can never be verified at any point relative to a given point. A can be not-yet-verified but not yet ruled out either. By these lights, (2) is not safe at all.

What the Kripke semantics brings out about (2) is the point emphasized by Hintikka, namely that (2) is loaded in the sense that it has an unwarranted presupposition. What «unwarranted» means in relation to the Kripke model is very clear – a statement A may be said to be *unwarranted* or *unwelcome* just in case A is not verified relative to a given point in the model. By these lights, what is wrong with (2) is that the proposition that the answerer has a spouse that she has beaten is presumably not established relative to the context of the inquiry at the point at which the question (2) has been asked.

An extremely important property of the Kripke model is that it has the property, as we call it, of being essentially cumulative: if a proposition is verified at a given point then that proposition must remain verified at every accessible point. But surely the fallacy of many questions should be studied in non-cumulative epistemic contexts of inquiry as well. Suffice it to say that both cumulative and non-cumulative systems are constructed by [Hamblin, 1970] in various attempts to model dialectical reasoning through formal dialogues, or games of logic. For our various purposes in studying the pragmatics of questions, it will be interesting to drop or retain cumulativeness conditions.

As is shown in [Woods and Walton, 1978], the severest problems of Hamblin games as models of the fallacies concern difficulties of the deductive closure of commitments. For example, Hamblin considers a rule of the following form as a device to aid in the managing of commitments in the asking of questions: 'Question A, B, ..., X?' may occur only when $A \vee B \vee \ldots \vee X$ is already a commitment of both hearer and speaker. This rule would ban the asking of a loaded question where *the* presupposition in the Belnap-Åqvist sense,

$A \vee B \vee \ldots \vee X$, is unwelcome to the hearer. So it would seem to deal with (2). But it does not entirely deal with objectionable questions like (2) because it does not deal with each individual presupposition of (2). For example, (2) has the presupposition $(W \wedge S) \vee (W \wedge \neg S)$: either you have a spouse you have beaten and stopped, or you have a spouse you have beaten and not stopped. But if commitments are not closed under implication, then even though the presupposition is equivalent to W, a participant in the Hamblin game could be committed to $(W \wedge S) \vee (W \wedge \neg S)$ but not to W or vice versa. So, for example, just because that participant is not commited to W, it doesn't follow that we can't ask her (2).

We already noted above that if we define a presupposition in the Belnap-Åqvist way, then any unsafe question will have an infinite number of presuppositions, because of classical rules like $p \rightarrow q \vee r \vee s \vee \ldots$. Now conjoin this to Hamblin's rule that a question should not be asked unless it is a commitment of both hearer and speaker, and it is required that the speaker and hearer each have an infinite number of commitments.

This problem is quite a general one for the study of the fallacies. What is needed is a conditional that allows for deductive closure of only those commitments that are closely related to a commitment at issue. The problem is that a cumulative system like the Kripke model has total closure of commitments, whereas the Hamblin games do not require any closure of even the direct consequences of commitments. The solution adopted in [Woods and Walton, 1980] is to introduce a relatedness logic which allows that only propositions directly related to and implied by a commitment admit of closure. However, the problem is quite a general one for the study of conditionals, and we cannot deal with it here.

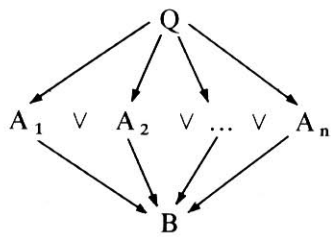
It seems that there is more than one aspect of (2) that could be described as fallacious, but so far none of these aspects by itself appears to exhaust the fallaciousness of (2). It is time to resolutely attempt a pragmatic overview of what could be wrong with (2) and similar fallacious questions.

IV

A question with an unwelcome presupposition is to be here called a *loaded* question. We shall mean 'unwelcome' in the sense that the presupposition may not be regarded as fairly established relative to a given dialectical game. Of course the Kripke model is one clear instance of such a game. We define a *safe* question as one where the presupposition is a tautology according to the procedures for determining tautologies adopted by the participants of a dialectical game. We may leave it as an open question, relative to a given game, whether or not all safe questions are not loaded. Combining these two concepts, we get a partial but strong explanation of the fallaciousness of (2). The safe-appearing (2) is not only risky, but loaded.

In addition to this trickiness however, it contains yet another snare for the unwary. It *forces* the intended victim to accept the unwelcome presupposition no matter which way he answers *yes* or *no*. Like the well-known frustrating questions of objective tests, it requires but does not contain an alternative 'None of the above.' There is more to the fallacy than its being really loaded while demurely offering the appearance of safety. Not only is it loaded, but *all* the chambers are loaded.

A safe question may be described as one that has alternatives that are logically exhaustive of all the possibilities. To answer it you must choose one.



But no matter which one you choose, you may also be forced to choose some unwelcome proposition B, individually implied by each of the A_i. The deeper explanation of the essential fallaciousness is that Q appears safe because the A_i are logically exhaustive and consequently $A_1 \vee A_2 \vee \ldots \vee A_n$ is a tautology. Up to this point, Q is indeed «safe». But the deeper level of analysis represented by the

third stage of the diagram reveal that the A_i themselves collectively contain a presupposition that is not a tautology. Each and every one of the A_i implies B. And B, as might happen, may be not only *not* a tautology, it may be unwelcome.

So it is a question of peeling off two levels of analysis. At the first level the presupposition is safe, but at the second level it is loaded. And the twist is that we can't remain at the first level, for B is a deductive consequence of *every* A_i at the first level. Thus there is a third factor. Not only first, does the question appear to be safe while in reality it is risky, but second it is more than risky, it is loaded. But third, the fallacy is *coercive* in that each disjunct of its presupposition individually implies the proposition that is unwelcome to the answerer.

We now have a fuller account of the fallacy. It explains a good deal of what is really fallacious about the spouse-beating question. However *this* fallacy, while plainly an egregious and therefore interesting one, is not the only fallacy that might be called, or that has been called «Many questions» («complex question», etc.).

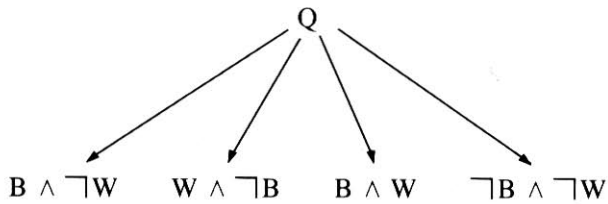
In concluding his discussion, Åqvist makes an interesting point about the label 'Fallacy of Many Questions': «... the label does not appear particularly appropriate in view of the fact that it misleadingly suggests that what is wrong about questions involving false presuppositions consists in their involving two or more independent questions» [Åqvist, 1965, 75]. Consequently, using the label 'Fallacy of Many Questions' might lead us to overlook the distinction between fallacious and merely multiple questions. Belnap and Steel make a kindred point in remarking that the fallacy of many questions is badly named. Hence something like 'Fallacy of False-Presupposition Questions' might be more to the point, in Åqvist's or Belnap's terms. In the context of the foregoing – at least as I think – more adequate analysis, perhaps it might graphically be called 'The Fallacy of Force-Loaded Questions.' Certainly, «many questions» can be ruinously misleading.

Indeed, the philosopher himself wrote at *De Sophisticis Elenchis* 167 b 39: «[fallacies] that depend upon the making of two questions into one occur whenever the plurality is undetected and a single answer is returned as if to a single question.» This difficulty is a different sort of problem than the fallacy we have been attempting to analyse in (2), yet clearly it is one ingredient that helps to explain an

important aspect of how the fallaciousness of (2) works. The way to deal with this particular difficulty is simply to separate the questions, as Aristotle himself observes at *De Sophisticis Elenchis* 181 b 1: «To meet those refutations which make several questions into one, one should draw a distinction between them straight away at the start. For a question must be single to which there is a single answer, so that one must not affirm or deny several things of one thing, nor one thing of many but one of one.» We should note emphatically however the risk of terminological confusion – or better, the fact of – in that the historical progenitor of «many questions» in the logic texts, namely this account from the *De Sophisticis Elenchis*, is clearly not the whole story of what is fallacious about (2). What we have here is a phenomenon familiar in the fallacy domain, the evolution of the name to cover something quite different evidently from Aristotle's original account. We can see why the name «many questions» was originally appropriate, and has now, over centuries of pedagogical employment, become curiously inappropriate, at least in large part. Should we follow tradition and, at risk of adopting a possibly misleading label, continue to call our main analysis above an account of The Fallacy of Many Questions? Or should we boldly offer 'The Fallacy of Force-Loaded Questions'? Perhaps it doesn't matter. My own inclination is to stick with tradition even if this commits us to some historical explanations of the apparent oddity of the traditional term. The important thing is to be clear on the distinction between Aristotle's multiple-questions «fallacy»([9]) and the spouse-beating fallacy we have now opted to call Many Questions.

Another deficiency in question-asking related to the fallacy of (2) is suggested by an illustration of Aristotle's that does not fit any aspect of questions we have so far studied: «Supposing A to be good and B evil, you will, if you give a single answer about both, be compelled to say that it is true to call these good, and that it is true to call them evil and likewise to call them neither good nor evil (for each of them has not each character), so that the same thing will be both good and evil and neither good nor evil.» This too is an interesting form of argument from the point of view of erotetic fallacies but it appears to be a distinct fallacy from Many Questions. Let us call it the Black and White Fallacy. This is a form of whether-question, where the set of alternatives of the presupposition is incomplete, not in the sense of

being not safe, but in the sense that it does not fairly represent all the reasonable alternatives. Thus to ask someone whether a zebra is black or white is to introduce a new dimension of unfairness of presupposition into the asking of questions. To ask 'Black or White?' is to omit some needful alternatives in the disjunctive presupposition $B \vee W$. The alternatives should be: 'Black but not White,' 'White but not Black,' 'Both Black and White,' or 'Neither Black nor White.'



Now since $(B \wedge \neg W) \vee (W \wedge \neg B) \vee (B \wedge W) \vee (\neg B \wedge \neg W)$ is a tautology, the question is not only safe but introduces sufficient discriminations amongst the alternatives to avoid the fallacy. How the Black and White Fallacy is to be analysed remains an open question, since the job requires some structure that could serve as a basis for a method of deciding when a set of alternatives of the presupposition of a question is adequately representative of the fineness of discrimination needed relative to the context.

One way of dealing with the Black and White Fallacy is by means of the method of relativized conditionalization of questions of Belnap and Steel. They propose that a question like 'If it was murder or suicide, which one was it?' can be parsed as a conditional question so that if it was neither suicide nor murder the question may be regarded as inoperative. I do think that this method provides an analysis of what is precisely fallacious about the Black and White Fallacy, but it does offer one way of coping with that fallacy.

However this fallacy is to be analyzed, ([10]) it is fitting to close a practical discussion of it by emphasizing its importance in actual argumentation by citing some items in a long and entertaining list of questionable questions compiled by [Fischer, 1970, 10f.]. The following are actual titles of works published by reputable historians: *Napoleon III: Enlightened Statesman or Proto-Fascist?, The Abolitionists: Reformers or Fanatics?' Plato: Totalitarian or Demo-*

crat?, The Dred Scott Decision: Law or Politics?', Ancient Science: Metaphysical or Observational?, Feudalism: Cause or Cure of Anarchy? As Fischer points out, these questions suffer from a wide variety of faults of shallowness and simple-mindedness. But whatever else their faults, they are splendid examples of the Black and White Fallacy. Finally, (2) has yet another aspect to its analysis not yet brought out. This has to do with negation in certain kinds of temporal expressions of continuity. It is clearly brought out by noting the analogy between (2) and the Megarian paradox of the horned man.

What you have not lost you still have.

You have not lost horns.

Therefore, you still have horns.

[W. Kneale and M. Kneale, 1962, p. 114] offer the following explanation. The second premiss involves a presupposition, i.e. 'You once had horns.' And that second premiss may be negated either in a restricted way that accepts the presupposition or in an unrestricted way without acceptance of the presupposition. The same sort of explanation could be applied to (2). 'You have not stopped beating your spouse' could be negated in a restricted way that accepts that you had once beaten and are continuing to beat your spouse. Or it could also be negated unrestrictedly in a way that does not accept that presumption, even if this second interpretation might be the less likely one to be usually taken up. Whatever the correct explanation of what is sophistical about the non-erotetic horned man paradox, its evident similarity to (2) brings out a new element of the Fallacy of Many Questions.

This aspect of (2) is especially remarkable in that it suggests that negation plays an important role in Many Questions and related fallacies, and this is an aspect that requires further study. The suggestion that different kinds of negation are involved again underlines the wisdom of a pluralistic approach. Neither the intuitionistic negation nor classical negation are therefore fully adequate to dealing with all relevant aspects of (2).

V

We have discovered a number of distinct aspects of (2), each of which is of pragmatic relevance in understanding the fallaciousness of (2) as a whole, and how the parts of it work: (i) (2) is a question that appears safe but is risky, (ii) (2) is a loaded question; (iii) (2) is force loaded – it leaves the answerer no choice; (iv) (2) is a multiple question; (v) (2) fails to make finely enough discriminated alternatives; (vi) (2) has an ambiguity in negation like the horned man fallacy. Moreover, we have argued that some of these six factors need not be in themselves fallacious. Importantly, none of these factors taken by itself – so we have argued – explains what is fallacious about (2). Clearly all of the six factors are elements of the fallaciousness of (2), but we leave it open here just precisely how these elements are to be weighted in a mapping of the overall geography of what we are calling the fallacy of many questions. Perhaps it is reasonable to suggest that the first three factors might be somewhat more significant as main elements of what is generally fallacious about (2) as an instance of the many questions fallacy.

It is also suggested by the foregoing analysis that we should reject any assumption that either asking loaded questions or multiple questions is in itself somehow intrinsically fallacious. This warning is encouraged by the observation that sometimes it is useful and reasonable to formulate and ask both kinds of questions.

Plainly, however, one needs to be careful in these regions, since the device of cleverly combining loaded and multiple questions can unquestionably be a powerful weapon in the sophist's arsenal. Such techniques, while not strictly speaking fallacious *per se*, can be trickily employed, and are devices that the student of fallacies should be familiar with.

An objection to our analysis is the following. If there is nothing fallacious *per se* about loaded or multiple questions, is it not the case that sometimes (2) is perfectly non-fallacious? If in the fact the addressee of (2) is a known spouse-beater, surely the presupposition is a reasonable one. Hence surely, in that specific context, (2) is non-fallacious. The above analysis rules that the many-questions fallacy occurs when (i), (ii), (iii), (iv) and also perhaps the other two

conditions are met. In this situation, the required conditions are met, but the question is not fallacious.

The reply is that according to the analysis we offer here, (2) is not always fallacious. We must remember that the analysis given here is always relative to the given context of inquiry or disputation. If all parties agree that the addressee is a spouse-beater, including that very person herself, then relative to that specific context of inquiry, (2) is not fallacious. Reason: condition (ii) is not met, because (2) is, in that specific context, not loaded.

In other words, according to the present analysis (2) can be fallacious or not, depending on whether or not the required conditions are met. This may represent something of a departure from tradition, according to which (2) is thought to be a fallacy. By our analysis, it is not always fallacious and can, in this one instance at least, be a reasonable question to ask.

Another objection is that in the everyday practice of real answering procedures (2) is perfectly non-fallacious because the obvious answer «I have never beaten my spouse», is perfectly correct. In ordinary reasoning, unlike formal erotetic framework, we allow the question to be asked. But then we answer it by questioning or rebutting that presupposition. After all, isn't that the natural response? One is not, in real argumentation, forced to tamely answer 'yes' or 'no' to (2).

This objection reminds us that the method of conditional guarding of II.C offers a way out of being forced to answer 'yes' or 'no'. If so, then how can it be that, according to the analysis above, the answer is left no choice? Hence the analysis must be wrong.

In reply it should be conceded that indeed the best strategy for the non-spouse-beater, or at least the addressee who does want to be acknowledged as a spouse-beater, is to rebut the presupposition W. The technical problem remains however – as we saw in section II – of precisely the best way to carry out this strategy.

The objection runs deeper than this however. It postulates that rebutting the presupposition W is a correct answer, or at least rightly should qualify as such in the everyday practice of argumentation. The objection rejects the formal erotetic approach of requiring direct answers to a yes-no question. After all, outside of formal dialectical games and other formalized structures, are we ever really *forced* to answer questions directly? How realistic are these erotetic models to

the pragmatic question of whether (2) is a fallacy?

In reply, it should be pointed out that there are real-life situations where the addressee of a question is not offered the option of challenging the presupposition of a yes-no question, or a whether-question with a finite set of alternatives where the respondent is required to select one. The so-called «objective» examination questions, or multiple-choice questions, are sometimes alleged to be precisely of this nature by students required to answer them. It is as though the question was formulated in this way: You have stopped beating your spouse – answer 'yes' or 'no'. Similarly, in court occasionally a witness is required by the magistrate to directly answer the question 'yes' or 'no', and not to evade it or ask to have it reformulated. According to our analysis, this procedure need not be fallacious, although it may be if the presupposition is unwarranted relative to the inquiry.

So the point should be made that there are actual and not merely technically constructed situations in which the answerer is forced to give a direct answer to a question like (2). At least she is forced in the sense that no third alternative, or way of avoiding the question, is offered. In other ordinary situation however, it is clear that the best way to deal with the obviously outrageous question (2) is to rebut the presupposition W. It should be added however, that (2) is a study specimen, whereas more complex or subtle questions of the same form as (2) may actually occur in argumentation and be, for various reasons, harder to deal with.

Thus condition (iii) is a key element in the fallaciousness of (2). Asking someone «Are you still beating your spouse or not, if in fact you have ever done so at all?» is not fallacious, at least so I think, because it leaves the non-spouse-beater a clear way out. A third alternative is nicely offered. All you have to say is: «No I never did so at all.» The deceitful strategy of (2) however – transparently obvious though it is in this particular amusing example – lies in the failure to offer the answerer this way out. That is not to say however, that in real life she won't take it anyway! (2) in many ordinary situations does not literally force the answerer to acknowledge her spouse-beating. But by not offering an alternative to options that have this presupposition, its structure is such as to unfairly restrict the options offered some answerers.

NOTES

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(1) The traditional question is actually 'Have you stopped beating your wife?' but since recent surveys indicate that husband-beating is also widespread, it seems only fair to allow for that possibility.

(2) Belnap and Steel say the same thing.

(3) This is to acquiesce, though not too heavily, in the traditional doctrine that fallacies are invalid arguments that *seem* valid. Thus any fallacy will have two sides to its counterfeit coinage – a formal side and a more pragmatic side. This does not mean, of course, that every instance of an informal fallacy must always seem valid at some time to everyone, or something of the sort. Merely that it must be a form of argument that is of some general interest in studying patterns of rational disputation between participants in argument. For more comments on this dichotomy see [Woods and Walton, 1975].

(4) For elaboration on this theme see [Woods and Walton, 1975].

(5) Not that fallacies cannot be studied from a rhetorical point of view.

(6) See also the useful discussion in [Prior and Prior, 1965] and [Whately, 1840].

(7) [Prior and Prior, 1965].

(8) See [Hamblin, 1970] and [Hamblin, 1971].

(9) Interesting discussions of errors in dealing with conjunctive propositions and questions are to be found in [Geach, 1972, pp. 18-20] and [Geach, 1976, p. 77f.]. Professor Geach tells me that he thinks no fallacy is committed by the mere asking of a question of the form 'Is it the case that both p and q?'. I agree with this thesis and hope that everything I say is consistent with it. However, as Geach shows, a formal fallacy occurs on the part of such a questioner if he infers $\neg p \wedge \neg q$ from a negative answer to this question: the inference from $\neg(p \wedge q)$ to $\neg p \wedge \neg q$ is formally invalid.

(10) It is interesting to remark that the Black and White Fallacy has an element of «forcing» that we saw to be characteristic of Many Questions. This element is made especially clear in the treatment of Aristotle's example by [William of Sherwood, 1267].

> [S]uppose that two things are pointed to, one of which is good, the other bad. 'Are these things good or not good?' If one takes the affirmative (*si concedat*), one is necessarily refuted, for it follows that what is not good is good. But if one takes the negative (*neget*), refutation seems to follow although it does not follow; for this does not follow: 'they are not good; therefore this one of them is not good.'

Here the question is actually safe, the presupposition being $G \vee \neg G$ where G represents

the statement 'These things are good.' Here also the fallacy is one that pertains essentially to conjunction. Just as $\neg(A \wedge B)$ does not imply $\neg A$, so 'x and y are not (both) good' does not imply that x is not good. But the essential point to note here is that, as William makes clear, the trap posed by the question consists in its attempt to force the answerer to choose among two alternatives, each of which is untenable, to force the answerer to the acceptance of a proposition that is unwelcome to him. The Black and White Fallacy shares some characteristics with the Fallacy of Many Questions.

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