

CONDUCTIVE ARGUMENTS IN ETHICAL DELIBERATION

Douglas Walton

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Abstract

In this paper I analyze some examples used by Wellman to illustrate how conductive arguments work by a weighing of the pros and cons, the reasons for doing a designated act versus the reasons for not doing it. According to Wellman's account, we make a reasoned decision in such cases by formulating and considering the pro and con arguments through a process of critical reflection and discussion. One example is shown to be particularly revealing in showing how conductive reasoning works. I use recently developed argumentation tools, like argument mapping and dialogue frameworks, to bring out the structure of conductive reasoning illustrated by this example.

0. Introduction

The term 'conductive reasoning' is not used much in current work in argumentation studies, and it is not easy to see at first how it is different from case-based defeasible reasoning. One difference is that the "even-if" characteristic of conductive reasoning takes into account the arguments on both sides of a disputed issue, the pro and the contra. Another is that conductive reasoning, on Wellman's definition, is drawn without appeal to other cases, thereby excluding analogical reasoning. In this paper, argumentation tools are applied to one of Wellman's examples of conductive reasoning. Argument mapping tools are devices used to visualize the premises and conclusions of arguments in a tree structure, and display a sequence of connected argument chained together to support an ultimate conclusion. More than forty such tools are described by Scheuer et al. (2009). Any of them could be used, but in this paper we use diagrams made up of leaves (text boxes) that represent statements that act as premises and conclusions of arguments, and nodes that represent arguments. This way of visualizing arguments inserts information about the argument, including its argumentation scheme, in the node, following the Carneades model of argumentation (Gordon and Walton, 2009).

The study of argumentation schemes, or forms of argument that capture stereotypical patterns of human reasoning, has also been a main working tool of argumentation research (Walton and Krabbe, 1995; Walton, 1996). Argumentation schemes have been put forward as a helpful way of characterizing structures of human reasoning that have proved troublesome to view deductively. Appealing to an authority during an argument, for example, may be reasonable, if expressed and supported properly, or may be fallacious. A systematic analysis of many common schemes, and a compendium of 68 schemes, are given in (Walton, Reed and Macagno, 2008). In this paper, the schemes for

practical reasoning and argument from positive and negative values will be shown to be helpful for learning about conductive argumentation.

Wellman defines conductive reasoning as meeting four requirements (1971, 52). First it is about a conclusion in some individual case. Second it is drawn inconclusively. Third it is drawn from one or more premises about the same case. And fourth, it is drawn without appeal to other cases. He tells us as well that the most striking feature of all the examples of conductive reasoning he has given is that they all deal with particular cases. He adds that all the examples of conductive reasoning he has given have been ethical arguments that conclude to an ethical statement about a particular case from factual premises (1971, 53-54). In addition he tells that there are three patterns of conductive reasoning. The first is one where a single reason is given for the conclusion, like “You ought to help him for he has been very kind to you” (1971, 55). In the second type, several reasons are given to support the conclusion, for example “You ought to take your son to the movie because you promised, and you have nothing better to do this afternoon” (1971, 56). In the third type, the conclusion is drawn from both positive and negative considerations. The example he gives here is this one: “Although your lawn needs cutting, you want to take your son to the movies because the picture is ideal for children and will be gone by tomorrow” (1971, 57). The third type brings out the nature of conductive reasoning most revealingly, because it has the pro-contra feature. In this paper, we will work on an example of this sort as our case study.

1. The Professor Example

This paper started out to try to deal with several of Wellman’s examples of conductive argument, but in the end dealt only with one. It is a bit frustrating reading the part of Wellman’s book *Challenge and Response* (1971, 51-83) on conductive reasoning that he gives only brief examples like those above. These brief examples have their place, but it would have been more helpful if he could have given some case studies, some longer examples showing how conductive reasoning works and how it should be dealt with. Generally, ethical philosophers, and analytical philosophers of that time did not believe in case studies or detailed treatment of examples, as casuistry was highly unfashionable. However, Wellman actually did give us some examples of this sort in his later textbook *Morals and Ethics* (1975). In this book he examines arguments on both sides of ethical disputes that were highly controversial at the time, including civil disobedience, premarital sex, and capital punishment. It is through his handling of these ethical problems what we see better what conductive reasoning is all about, in my opinion.

On the other hand, trying to deal with an extensive example of this sort, with many pro and contra arguments that need to be taken into account, is a too much of a lengthy exercise for this short paper to tackle. However, Wellman did give one mid-size example, short but not a one-liner, that is more useful for this purpose.

The mid-size example that Wellman gave in *Morals and Ethics* is quoted below (Wellman, 1975, 308). We will call it the professor example.

Suppose, for example, that a professor is trying to decide whether to cheat on his income tax. Although his regular salary is reported to the Internal Revenue Service, he also has a modest amount of unreported income from giving lectures and acting as a consultant. It would be easy enough to refrain from listing this marginal income and pay a tax on the regular salary only. How does the professor know whether it would

be right for him to cheat on his income tax? He must weigh the reasons for cheating against the reasons for not cheating. He really needs the money he would pay in extra taxes in order to keep up his payments on his large mortgage; it is unlikely that he would be detected and punished for his act; and he really does believe that the military spending for which much of his tax money would be used is wrong. On the other hand, if he were detected, the result would be disgrace and punishment; he does receive many benefits from his government, benefits made possible by the taxes of the general public; and he strongly approves of many welfare programs that are supported by tax funds.

This example has some pro and contra arguments on both sides of an issue that has the format of an ethical deliberation. A professor is trying to decide whether to report some income on his tax return. If he fails to report it, that would be “cheating” in Wellman’s terms, and if he does report it, that would be not cheating. Hence the framework of the deliberation can be determined by specifying three factors.

Participants: There is just a single agent, a professor who is considering the argument on both sides by reasoning with himself.

Choice to Make: The professor is trying to decide whether to cheat on his income tax.

Circumstances: Although his regular salary is reported to the Internal Revenue Service, he also has a modest amount of unreported income from giving lectures and acting as a consultant. It would be easy enough to refrain from listing this marginal income and pay a tax on the regular salary only.

The professor considers several arguments, stated by Wellman, but we are not told anything about how strong the arguments are, or what the professor’s values are that might play a role in determining how he should make the decision. Also, we are not told about any further arguments that might be used to justify or attack any of these given arguments. As the deliberation framework states, there are two conclusions, ‘The professor should cheat’ and ‘The professor should not cheat’. Let us say that the pro arguments are for cheating and the contra arguments are for not cheating. Let us start by making a key list of these explicit premises on each side.

Key List of Explicit Premises for Con Argumentation

P1. He really needs the money he would pay in extra taxes in order to keep up his payments on his large mortgage.

P2. It is unlikely that he would be detected and punished for his act.

P3. He really does believe that the military spending for which much of his tax money would be used is wrong.

Key List of Explicit Premises for Pro Argumentation

C1. If he were detected, the result would be disgrace and punishment.

C2. He does receive many benefits from his government, made possible by the taxes of the general public.

C3. He strongly approves of many welfare programs that are supported by tax funds.

In figure 1, it is shown that the arguments can be divided into two sides, the pro arguments on the left and the con argument on the right. The node in the middle, labeled ‘cheating’, represents the statement that it is right for the professor to cheat on his income tax. Pro arguments are indicated by a closed (darkened) arrowhead, while contra arguments are indicated by an open arrowhead.

To take the first steps toward structuring this argumentation a bit better, let us see how we could represent it with an argument map that brings out its conductive aspect by showing how the arguments on one side are weighed against the arguments on the other

side. Figure 1 seems to represent conductive argumentation in an intuitive way, the three arguments on the left side are counterbalanced by the three on the right side.

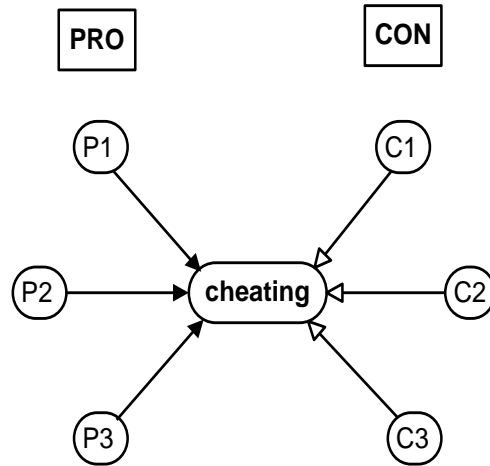


Figure 1: First Representation of the Cheating Example

This map is not quite right, however. One rebuttal of another argument is involved. P2 rebuts C1, rather than supporting ‘cheating’ directly. By undercutting C1, P2, indirectly provides support for ‘cheating’. To insert this chain argument, and better represent the argumentation in the case, we can picture it as shown in figure 2.

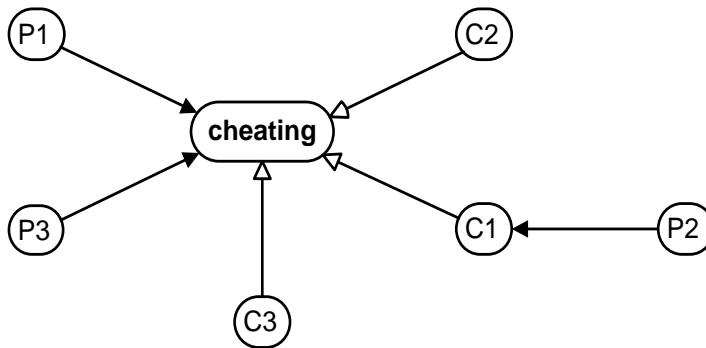


Figure 2: Second Representation of the Cheating Example

In figure 2, we still have the three pro argument and the three con arguments. But it is not so obvious that that they are evenly balanced, three against three. It is three against two, with one of the two having an argument to back it up. P2 on the right is merely backing up one of the other con arguments. In figure 1, P2 was represented as a positive pro argument in its own right.

2. Analyzing Practical Reasoning in the Example

So far we have only examined the statements put forward by Wellman as explicit premises or conclusions in the pair of opposed arguments. We now take the next step of

looking around for implicit elements that can be conjectured. We can carry out such a reconstruction by using the argumentation scheme for practical reasoning. As the analysis proceeds in this section, we will have to bring in an analysis of some implicit premises and conclusions in Wellman's example, thus confronting the problem of enthymemes. This problem is dealt with by building on current argumentation methods by giving some account of where the missing assumptions in the argument should come from.

There are simpler and more complex versions of the argumentation scheme for practical reasoning presented in the current literature, but here we begin with the simplest one below from (Walton, Reed and Macagno, 2008, 323). In this version of the scheme, the first-person pronoun 'I' represents a rational agent, an entity that has goals, some knowledge of its circumstances, and the capability of acting to alter those circumstances

MAJOR PREMISE: I have a goal *G*.

MINOR PREMISE: Carrying out this action *A* is a means to realize *G*.

CONCLUSION: Therefore, I ought (practically speaking) to carry out this action *A*.

The premise P1, the statement that the professor really needs the money he would pay in extra taxes in order to keep up his payments on his large mortgage, is connected with the rest of the argument, we now claim, based on practical reasoning. The reasons behind this claim can be explained as follows. One of the professor's goals is presumably to keep up his payments on his large mortgage. In order to accomplish this goal, he really needs the money he would pay in extra taxes, we are told by P1. According to the circumstances, it would be easy enough to refrain from listing this marginal income and pay a tax on the regular salary only. The implied conclusion, based on practical reasoning, is that these premises provide a reason for refraining from listing this marginal income and for paying tax on the regular salary only.

How this part of the argument is based on practical reasoning, as shown in Figure 3.

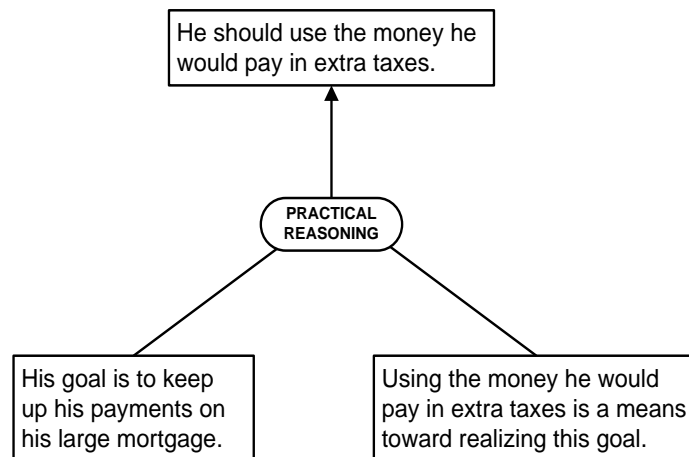


Figure 3: First Use of Practical Reasoning in the Professor Example

How did we get this argument out of P1, the explicit premise that he really needs the money he would pay in extra taxes in order to keep up his payments on his large mortgage? The answer is that P1 expresses a means-end relation. So it can be broken down into two components, a statement of a goal and a statement expressing a means towards realizing the goal. Using the scheme for practical reasoning, these two statements

can be fitted together and onto the implicit conclusion that he should use the money he would pay in extra taxes. This statement is shown as the conclusion in figure 3.

Having gone this far, we can see that the dots need to be connected in the chain of practical reasoning required to get to the ultimate conclusion. The professor's problem is now a practical one, once he has made the steps of reasoning shown in figure 3. His subtask is now to use the money in order to keep up the payments on his mortgage. Thus he has a subgoal that needs to be postulated. He now has the goal of using the money. But he can't do that directly. He has to get the money first. These implicit goal and means statements can be put in as implicit premises in a chain of practical reasoning connecting them to the ultimate conclusion of 'cheating' as shown in figure 4.

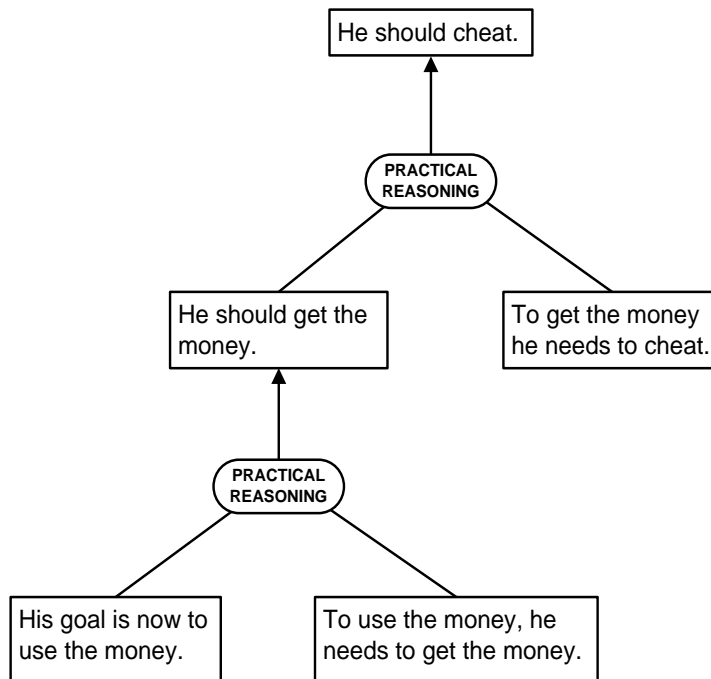


Figure 4: Implicit Chain of Practical Reasoning to the Ultimate Conclusion

We can now link up the chain of reasoning with that in figure 3 as follows. The conclusion shown in figure 3 leads to the premise at the bottom left of figure 4, the statement that his goal is now to get the money. The reason is another implicit premise that in order to use something like money for some ultimate end, you first of all have to get the money, or at least obtain control over how to use it. Once we have connected up the argument maps in figure 3 and figure 4 together, we have displayed the longer chain of reasoning leading from P1 to the ultimate conclusion from P1 to the conclusion that the professor should cheat on his income tax. However, this is only part of the story. We still need to look at other supporting reasons on this side of the issue, and as well at the chain of reasoning on the opposing side. But before we can do that we need to ask a question. The question is where the last implicit premise, as well as the other implicit premises came from. This last one was the premise in order to use something like money for some ultimate end, you first of all have to get the money, or at least obtain control

over how to use it. To answer this question we have bring in case-based reasoning, and learn a little about how it uses common knowledge to fill in gaps in a chain of reasoning.

According to the theory of enthymemes presented in (Walton, 2008), enthymemes are sometimes based on an arguer's commitment in a dialogue, and sometimes based on common knowledge. The assumption that in order to use something like money for some ultimate end, you first of all have to get the money, or at least obtain control over how to use it, is an item of common knowledge. Govier (1992, p. 120), designated common knowledge as consisting of statements known by virtually everyone. She gave the examples, 'Human beings have hearts' and 'Many millions of civilians have been killed in twentieth-century wars' (p. 120). Freeman (1995, p. 269) designated common knowledge as a set of statements that many, most or all people accept.

A different kind of common knowledge has also been recognized as important in artificial intelligence. The open mind common sense system (OMCS)¹ included such statements as 'If you hold a knife by its blade then it may cut you' and 'People pay taxi drivers to drive them places'. (Singh, Lin, Mueller, Lim, Perkins and Zhu, 2002, p. 3) Common knowledge of this kind represents knowledge about action sequences that are connected into familiar and normal routine ways of doing things in everyday life. We all know how knives are normally used to cut things, and we are so familiar with this common procedures that we know that if you try to do it by grasping the blade of the knife, it is very easy to cut your finger. And we are familiar with the sequence of actions in taking a taxi to get somewhere, and we know that taxi drivers normally have to be paid (subject to exceptions). According to Schank and Abelson (1977), this kind of common knowledge is based on what they call a *script*, a body of knowledge shared by language users concerning what typically happens in certain kinds of stereotypical situations, and which enables a language user to fill in gaps in inferences not explicitly stated in a text of discourse. They used the famous restaurant example. We are told explicitly that John went to a restaurant, the hostess seated John and gave him a menu, and John ordered lobster. Later, we're told, John left a tip, and left the restaurant. Given this explicit text, we can infer other implicit statements that fill in gaps in the account. The whole sequence of events and actions in the standard restaurant routine is called a script.

To answer the question of where the implicit premise in the professor example came from, we need to see how we can fill in implicit elements from the explicit text of the professor example given by Wellman. The example above was the premise that in order to use something like money for some ultimate end, you first of all have to get the money, or at least obtain control over how to use it. Adding in this premise makes the reasoning used in the example hang together much better, because it makes explicit how the argumentation is based on practical reasoning. But what basis do we have for justifying the claim that we can reconstruct the argumentation in the example by plugging in this assumption as an implicit premise? The answer is that the process of getting money to use it to some end is a highly familiar script, a routine sequence of actions in everyday life. Nobody would be likely to dispute the general principle that in order to use something like money for some ultimate end, you first of all have to get the money, or at least obtain control over how to use it. They might, in some cases, but this general principle is not part of the issue in the professor example, so far as we know yet, at any

¹ <http://commonsense.media.mit.edu/cgi-bin/search.cgi>

rate. Therefore it is reasonable to accept it as an implicit premise on the one side of the argument in the professor example.

3. Schemes for Instrumental and Value-Based Practical Reasoning

Now we have seen how practical reasoning is involved in the professor example, we need to continue analyzing some of the other parts of the argumentation. One of the arguments put forward on the contra side is this one: “on the other hand, if he were detected, the result would be a disgrace and punishment”. The type of argument involved here is called argument from negative consequences (Walton, 1996, 75).

PREMISE: If *A* is brought about, negative consequences will plausibly occur.

CONCLUSION: *A* should not be brought about.

Argument from negative consequences is a form of counter-argument that cites the negative consequences of a proposed course of action as a reason for not taking the course of action. There can also be argument from positive consequences, which has the same form, except that positive consequences are cited as reasons for carrying out the contemplated action (Walton, 1996, 75).

PREMISE: If *A* is brought about, negative consequences will plausibly occur.

CONCLUSION: *A* should not be brought about.

There are three critical questions matching argumentation from consequences (Walton, 1996, 76-77).

CQ₁: How strong is the probability or plausibility that these cited consequences will (may, might, must) occur?

CQ₂: What evidence, if any, supported the claim that these consequences will (may, might, must) occur if *A* is brought about?

CQ₃: Are there consequences of the opposite value that ought to be taken into account?

These forms of argument the argument are defeasible, meaning that each of them is cast into doubt if there is a failure to answer any critical question adequately. Both schemes are built on the use of values in argumentation and are associated with schemes for argument from positive values and negative values.

Argument from negative consequences is a separate type of argument from practical reasoning in its own right, but it is very often used as a way of rebutting or questioning arguments based on practical reasoning. This relationship is shown when one examines the set of critical questions matching the scheme for practical reasoning (Walton, Reed and Macagno, 2008, 323).

CQ₁: What other goals do I have that should be considered that might conflict with *G*?

CQ₂: What alternative actions to my bringing about *A* that would also bring about *G* should be considered?

CQ₃: Among bringing about *A* and these alternative actions, which is arguably the most efficient?

CQ₄: What grounds are there for arguing that it is practically possible for me to bring about *A*?

CQ₅: What consequences of my bringing about *A* should also be taken into account?

Critical question CQ₅ often called side effects question, is closely related to argument from negative consequences. The difference is that the side effects question is merely a

question, while argument from negative consequences is a counterargument that has a burden of proof attached to it. This means that when an opponent puts forward a counterargument that has the form of argument from negative consequences, he needs to justify that argument by citing some specific negative consequences in order to make his argument effective as an attack against the opposed viewpoint.

Both arguments from positive consequences and negative consequences are based on assignments of values. Consequences following from the contemplated course of action are being evaluated as positive (good) or negative (bad), according to some set of values presumably shared by the participants in the argument. The argument that if the professor's act of cheating were to be detected, the result would be a disgrace and punishment, is an instance of argument from negative consequences. The reason is that disgrace and punishment are taken to represent negative values, and therefore the argument is that the contemplated course of action that would have these consequences is one that should not be undertaken.

For these reasons, we can see that arguments from positive and negative consequences are closely related to an even more fundamental type of argument called argument from values. This type of argument also has two forms, argument from negative value and argument from positive value. The scheme for argument from negative value is from (Walton, Reed and Macagno, 2008, 321).

MAJOR PREMISE: If value V is negative, it goes against commitment to goal G .

MINOR PREMISE: Value V is negative.

CONCLUSION: V is a reason for retracting commitment to goal G .

The scheme for argument from positive value is the same, except that positive is substituted for 'negative' in both premises. To illustrate the argumentation scheme for argument from values, Bench-Capon (2003) presented the example of Hal and Carla. Diabetic Hal needs insulin to survive, but cannot get any in time to save his life except by taking some from Carla's house without her permission. The argument from positive value for preserving life is pitted against the negative value weighed against the argument from negative value of taking someone's property without his or her permission. As shown by the case of Carla and Hal, arguments from values are typically combined with practical reasoning. On value-based reasoning generally, see (Bench-Capon, 2003; Bench-Capon and Atkinson, 2009).

Finally, we need to see how argumentation from values is connected to practical reasoning, which is very often based on positive or negative values. The simplest form of practical reasoning shown above is instrumental in nature. It makes no reference to values. A more complex form of practical reasoning is called value-based practical reasoning (Atkinson et al, 2006). The following argumentation scheme for value-based practical reasoning is quoted from (Atkinson, Bench-Capon and McBurney, 2006, 160).

In the current circumstances R
 we should perform action A
 to achieve New Circumstances S
 which will realize some goal G
 which will promote some value V .

According to this way of defining the scheme, goals promote values, and values can be reasons that can support goals. Classifying consequences as good or bad, positive or negative, depends on some prior assignment of values.

The scheme for value-based reasoning has sixteen critical questions (Atkinson *et al.*, 2006). The following three are significant in the professor example.

CQ₁: Will the action achieve the new circumstances?

CQ₂: Will the action demote some other value?

CQ₃: Is there another action which will promote the value?

The formal framework for the scheme for value-based practical reasoning above is different from the framework used to formulate the scheme for instrumental practical reasoning given above. To help make the two compatible, there is following scheme for value-based practical reasoning (Walton, Reed and Macagno, 2008, 324).

MAJOR PREMISE: I have a goal G.

MINOR PREMISE 1: Minor Premise 1: G is supported by my set of values, V.

MINOR PREMISE 2: Bringing about A is necessary (or sufficient) for me to bring about G.

CONCLUSION: Therefore, I should bring about A.

Framed in this way, value-based practical reasoning can be classified as a hybrid scheme that combines argument from values with practical reasoning.

One of the premises, C1 (If he were detected, the result would be disgrace and punishment) is about negative consequences of one of the courses of action being contemplated. The argument that if he were detected, the result would be disgrace and punishment, is an argument from negative values used by the con side to oppose the practical reasoning argumentation put forward by the pro side on the issue of cheating. This opposing argument only works if the original argument from practical reasoning is value-based. Values have to be taken into account. One way to do this is to see values as supporting goals. An agent's values give reasons for supporting or questioning his goals.

4. Applying Schemes to the Example

It needs to be recalled from figure 2 that there is a prior argument on the pro side rebutting the rebuttal based on argument from negative consequences. This is the argument that it is unlikely that he would be detected and punished for his act, expressed in explicit statement P2. In Wellman's example, this argument is stated prior to the argument from negative consequences, and the statement can be classified as a proleptic argument put forward to rebut the potential argument from negative consequences even before it has been raised by the opposing side. When reconstructed more fully, the argument can be expressed as follows: it may be true that if he were detected, the result would be disgrace and punishment, but if it is unlikely that he would be detected, it is also unlikely that the result would be disgrace and punishment. The structure of this argument would not be straightforward to represent using formal logic, because it combines counterfactual conditionals and probability. But it can be represented by argumentation schemes. The argument from negative consequences is being attacked by raising the critical question about how likely the consequences are. It is being argued that if they are not very likely, there's a good chance of avoiding the negative consequences. This kind of argument is centrally a practical one. It is not disputing that the negative consequences are bad, or represent negative values. It is merely suggesting that if they're not likely to occur, from a practical point of view they may be avoided.

On the other hand, argument from values is very important to understanding the structure of the conductive argumentation in the professor example. The terms ‘disgrace’ and ‘punishment’ express negative values, and even the term ‘cheating’ that occurs in Wellman’s statement of the ultimate issue to be decided, incorporate negative values. Argument from values fits in with argument from negative consequences and value-based practical reasoning in the example, but it is not clear how these three schemes fit together in a way that can yield an overall understanding of how the conductive chain of argumentation works in the example. There are some problems with how this task should be carried out that can be expressed in a helpful way using figure 5.

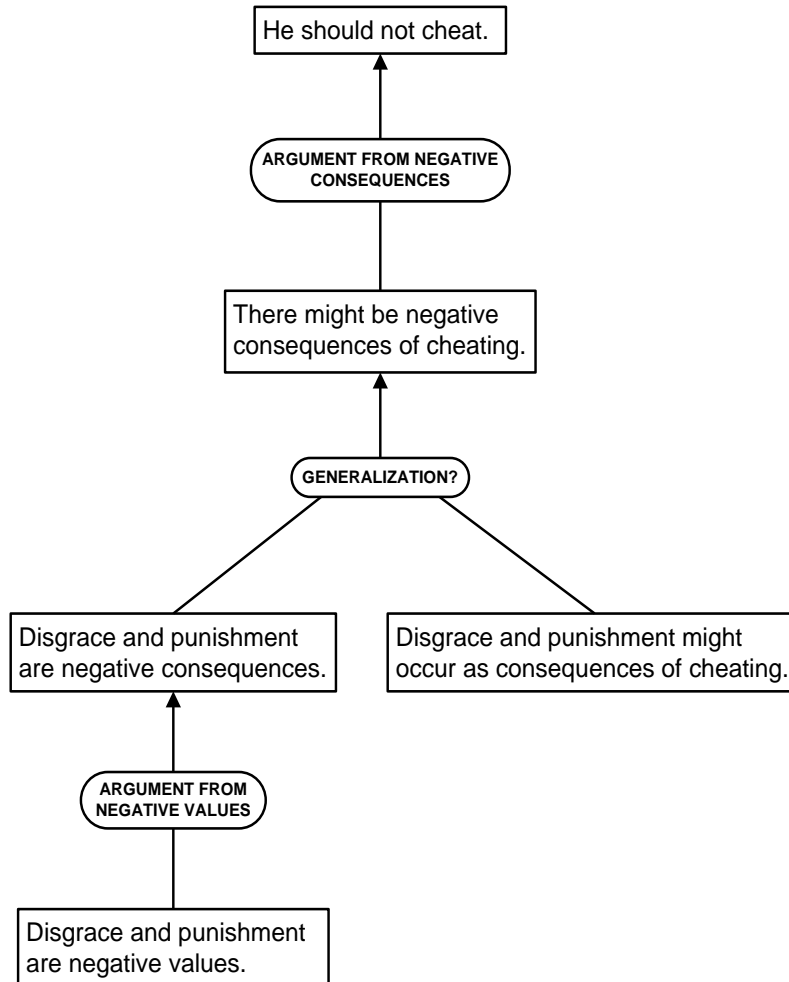


Figure 5: Attempt to Fit Values Schemes Together

The first problem is that the use of argument from values shown at the top left of figure 5 does not perfectly fit the scheme for argument from negative value. In the versions of the schemes for arguments from positive and negative value given above, a value supports or goes against commitment to a goal. In the professor case, there is no explicit statement of goal would fit this scheme in the right way to structure this part of the argument using the scheme. What we have done in reconstructing the argument while trying to use argument from negative values is to draw in a step from the premise that

disgrace and punishment are negative values to the conclusion that disgrace and punishment are negative consequences. The assumption is that because disgrace and punishment are negative values, these values can be attached to consequences that can be described using the words 'disgrace' and 'punishment'. This is a kind of stopgap measure however. It suggests that reconfiguring the scheme for argument from negative values may be required to do a good job of reconstructing the argumentation in the professor example.

The next problem occurs in the middle section of the argument visualized in figure 5. Once we have arrived at the conclusion that disgrace and punishment are negative consequences, in order to use the current version of argument from negative consequences to get the premise that there might be negative consequences of cheating, we need the additional premise that disgrace and punishment might occur as consequences of cheating. So this is how we have built the argument map. Notice that we have used several implicit premises. In fact, all the premises except the ones saying that disgrace and punishment might occur as consequence of cheating are implicit. This kind of result is expected when dealing with argument from values, because the use of this type of argument is typically hidden. For example in this instance, disgrace and punishment are not explicitly said to be negative values. It is because of the negative emotive connotations of these terms, as they are often called, that it can be implicitly assumed in the argument they're taken to represent negative values.

This way of representing the conduct of argumentation in the professor case is not entirely satisfactory. What is suggested by the example is that some of the schemes need to be reconfigured so that they can fit together better than typical cases of ethical reasoning using conduct of argumentation like this one. These are very commonly used kinds of arguments, and the way the schemes for practical reasoning, argument from consequences and argument from negative values should fit together in reconstructing such arguments should be more natural.

Another unsatisfactory aspect of the example is the way Wellman set up the decision to be made. He began the example by asking us to suppose that a professor is trying to decide whether to cheat on his income tax. Of course, 'cheating' is a negative term that refers to something that is morally wrong. It expresses, or is based on, a negative value. Hence the decision to be made is one-sided. From the beginning, there is a conductive weight in place on one side of the decision as opposed to the other. Cheating is wrong, and so there is already an implicit argument against the option not to disclose the income in place on one side. This aspect is concealed, however, for as noted above, arguments from values are typically embedded in positive or negative emotive language, and are therefore implicit. Wellman could have set up the issue more fairly if he had posed the decision to be made in the deliberation as a choice between disclosing the unreported income or not disclosing it. That way it would be much easier to setup the conductive argumentation on both sides using argumentation from positive and negative values and displaying these types of arguments as factors to be weighed against each other on either side.

Finally, something remains to be said about the premises P3 and C3 in the argument. These are the arguments concerned with the professor's approval of spending for welfare programs and disapproval for military spending. These could be classified as arguments from positive and negative values. For example the military spending argument could be

reconstructed by postulating the professor's implicit acceptance of some value like the value of peaceful coexistence with one's fellow human beings, which could be called the value of peace. The other value could perhaps be called the value of looking after one's fellow human beings who are in less fortunate circumstances. This could be called the value of charity, or something of that sort. Another way of reconstructing the arguments could be to view them as instances of argument from commitment. On this view, statement C3 expresses the professor's commitment to welfare programs, while the statement P3 expresses his commitment against military spending. Use of the word 'approves' in C3 suggests the use of argument from values.

5. Arguments from Classification and Values

The use of terms, like 'cheating' and disgrace, that express and are based on negative values is an important aspect of the conductive argumentation used in the professor example. By classifying the professor's contemplated actions under these terms, the example is using an ethically significant argument that can be represented by the scheme for argument from verbal classification (Walton, 1996, p. 54).

MAJOR PREMISE: If some particular thing *a* can be classified as falling under verbal category *C*, then *a* has property *F* (in virtue of such a classification).

MINOR PREMISE: *a* can be classified as falling under verbal category *C*.

CONCLUSION: *a* has property *F*.

The following example, based on a comparable example in (Hastings, 1963, 36) can be used. 2% can be classified as a poor return rate on a bond. This bond has a 2% return rate. This bond has a poor return rate. The major premise is: if a bond can be classified as falling under category of having a 2% return rate, then it has the property of having a poor return rate. The minor premise is: this bond can be classified as having a return rate of 2%. The conclusion is: this bond has a poor return rate. The major premise represents a defeasible generalization in typical instances of ethical argumentation. If there is a dispute about the classification, it can be questioned, and the argument may be weakened or even defeated.

Contra argumentation can be carried out by questioning the major premise generalization or by questioning whether it fits the particular action or event at issue. There are two critical questions (Walton, 1976, 54) for this scheme.

CQ₁: Does *a* definitely have *F*, or there is room for doubt?

CQ₂: Can the verbal classification (in the major premise) be said to hold strongly, or is it one of those weak classifications that is subject to doubt?

However, the classification premise itself can also be challenged by asking whether 2% really is a poor return for bonds. In many instances, the argument would not be plausible unless the property *F* had an argumentative value based on a commonly accepted meaning of a term, like 'poor return rate', which can vary with time and circumstances. Thus argument from classification is very often questioned by raising questions about definitions. Hence argument from classification is often linked to the scheme for argument from definition to classification.

Arguments from classification are typically used in a way that conceals an implicit premise. For example, if an action is classified as cheating, an implicit premise is that cheating is wrong, stemming from the accepted meaning of the word 'cheating'. Hence a

particular event or action at issue, like ‘what Bob did’, once classified under the term ‘cheating’, leads to the conclusion, via argument from verbal classification and argument from negative values, that what Bob did was wrong.

Use of terms that express values in ethical reasoning is often associated with Stevenson’s theory of emotive ethics (Stevenson, 1944). Stevenson’s theory sees such use of emotive language in ethics as expressing subjective personal preferences, as in the statement ‘I like chocolate ice cream’. This approach to value-based ethical reasoning has turned out to be misleading, however, as values of the kind supporting practical reasoning can often be widely shared and can be supported by reasons. As Stevenson argued, such verbal categorization may be based a speaker’s individual emotive reaction in some instances, but it may also be backed by shared knowledge of commonly accepted values. For example, we don’t need to argue that cheating is wrong, because it is generally accepted that if something can be classified as cheating, that is a reason to think it is wrong. However, such arguments are defeasible. There may be contra arguments showing that even though it can be reasonably argued the action at issue be classified as cheating, there may also be opposing arguments to show that the action was not wrong in exceptional circumstances. The problem is that using language that expresses values often conceals argumentation. The reasons are hidden in the wording.

Another issue that looms large here is the perennial one of whether if something can be classified as ‘cheating’ or ‘lying’ it is always wrong. Can there be circumstances, for example, in which lying is justified because it prevents a greater harm. The main problem, however, is the more technical one of how argument from value is connected to argument from classification. The professor example can be used to show these how these two forms of argument are connected in conductive reasoning used in ethical deliberation, but we leave this as an exercise for the reader.

6. The Method of Challenge and Response

Asking whether there could be any testing procedure for ethical arguments, Wellman (1971, 62) wrote, “I am not sure, but I doubt it.” But actually he does have a kind of testing procedure. Later in his book (1971, chapter 5), he put forward his challenge-response method of ethical justification. Maybe his reservations were about whether the challenge-response method was exact enough to qualify as a testing procedure. The cost-benefit method of decision-making weighs the expected costs of a set of alternative course of action costs against its expected benefits, and decides the outcome by selecting the alternative with the highest expected utility. This paper has suggested an alternative approach based on argumentation schemes helping us to identify and analyze the pro and contra arguments in a case. However, we said at the beginning that the framework of the deliberation can be determined by citing three factors: participants, choice to make, and circumstances. But is the framework one of deliberation or persuasion?

The type of dialogue that has been most intensively studied in argumentation is that of persuasion dialogue (Prakken, 2006). In this type of dialogue, there are two parties, there is some central statement at issue, and the goal of one side is prove the statement, while the goal of the other side is to disprove or doubt it. Deliberation has a different kind of goal. It is to solve a problem about what course of action to take. The problem statement is not a proposition, but a question, called a governing question by McBurney, Hitchcock

and Parsons (2007). Examples of these are: ‘Where should we go to dinner?’ and ‘How can we provide all Americans with health care insurance?’. The goal of a deliberation is to find a solution to common problem.

There are several key differences between persuasion and deliberation frameworks. Persuasion involves more conflict, while deliberation involves more cooperation. In a persuasion the roles are asymmetric. In a deliberation the roles of the participants are the same. In persuasion, each side has its own set of commitments, and each argues to persuade the other using the commitments of the other as premises. In deliberation, they get their common data on the circumstances as information updating they are all privy to. Both persuasion and deliberation can be about which action is best, but persuasion is more typically about whether a statement is true or not. Both often use the same kinds of arguments, but the illocutionary force of the speech acts used in them is different. Although the participants can perform similar speech acts, the way they react to them is different. In persuasion there is more attacking whereas in deliberation there is more trying to work together to find a common solution a problem.

It is interesting to quote Wellman’s remarks (1975, 309) on how the arguments should be weighed in a case of ethical decision-making like the professor example.

How do we weigh the relevant considerations in making moral judgments? We cannot put arguments on any scale and read off their weight from the pointer, nor can we literally heft the arguments in our hands to feel their relative weights. What we can and must do is to think through the various arguments and feel their logical force, or lack of it. What we feel is the persuasiveness of the argument, its psychological force. The logical force of an argument is its psychological force after criticism. In weighing an argument, it is not the strength of its first impact upon the mind that counts, but the persuasion it continues to exert after one has reflected on the argument, formulated it as clearly as possible and considered objections to it, discussed its point and its merit with other rational persons, and then reflected some more. The logically valid argument is the one that retains its persuasiveness throughout this critical process of reflection and discussion. We come to know which act is right by subjecting all the pro and con arguments to this sort of criticism and then feeling which seem the more persuasive.

Wellman does talk about persuasiveness but links it to psychological force, contrasting that with logical force. The most important point seems to be that it is not this initial persuasiveness, the first impact on the mind, that matters so much. What matters is the persuasiveness that remains after another process has taken place. He describes this process as one in which the decision-maker has followed this five-point sequence: (1) he has reflected on the argument, (2) formulated it as clearly as possible, (3) considered objections to it, (4) discussed its point and its merit with other rational persons, and (5) reflected some more. This process could be modeled as a three-stage dialogue. There is an opening stage where the problem is formulated, an argumentation stage where a group of rational persons has considered objections to the arguments pro and contra, and discussed the “point and merit” of the arguments, and a closing stage, where further reflections take place. I think this structure is a good description of the testing procedure that comprises Wellman’s method of challenge in response in outline.

The challenge response process could be modeled as either persuasion dialogue or deliberation dialogue, but it appears to fit the deliberation model better. The same could be said for the other examples of conductive reasoning quoted from Wellman in the introduction. They are all examples of what somebody ought to do in a particular set of circumstances where a choice needs to be made between two opposed courses of action.

7. Conclusions and Problems to be Solved

Analyzing the professor example has given us a good idea how Wellman's method of ethical decision-making uses conductive reasoning to weight the pros and cons of the argumentation on each side of the issue to be decided. In the quotation in section 6, Wellman has given us a general overview of how the method works in general. To frame it using concepts of argumentation developed after Wellman's books, we have modeled the process as a dialogue structure in which the two sides probe into the arguments on each side critically, going through a five-point sequence in a dialogue with three stages. Is it a persuasion dialogue or a deliberation dialogue? The answer is that it could be either, depending on whether the issue is a choice on a course of action or whether a designated statement is true or false. The professor example is clearly a deliberation.

What is this weighing process that Wellman identifies with conductive argument? How, in the professor example, should we weigh up the arguments on both sides to tell the professor what is his best choice, or to tell us what he should have done? These are the key questions that, no doubt, many readers will have. The answer is that there is no answer, because Wellman merely described the main arguments on each side, essentially comprising the explicit premises P1-P3 and C1-C3. So we are not in position to carry out the weighing procedure yet. In order to do this, we need to have more dialogue in which the arguments on each side are shown to interact with those on the other side. We did this a little bit by analyzing some of the support and attack relations in these arguments and identifying some implicit assumptions needed to better analyze them. But that is as far as we can go in the professor example, because Wellman only gives us a summary of the main arguments on each side. We might have been able to carry out an argument evaluation using conductive argumentation if he had told us, for example, which values the professor holds more strongly than others. But he doesn't do this either.

Still, it has been shown that the example is a good one to illustrate the main features of conductive argument and show how the pro and con arguments can be tested using Wellman's method of challenge and response. The example is fertile as well, in that in that it does fit very well with argumentation tools developed more recently, including defensible argumentation schemes and models of dialogue.

Two specific problems with the example remain to be solved. The first problem we confronted in analyzing the conductive argumentation in the professor example was the one about how argument from values is connected to argument from consequences in typical cases of ethical deliberation like this one. One way to solve the problem would be to change the argumentation schemes for arguments from consequences by adding a new premise. Argument from negative consequences would now look like this.

MAJOR PREMISE: If A is brought about, consequences will plausibly occur.

MINOR PREMISE: These consequences are negative.

CONCLUSION: A should not be brought about.

Argument from positive consequences will be comparable.

MAJOR PREMISE: If A is brought about, consequences will plausibly occur.

MINOR PREMISE: These consequences are positive.

CONCLUSION: A should be brought about.

Using this new version of the scheme for argument from negative consequences, the chain of reasoning in figure 4 can be reconfigured as shown in figure 6.

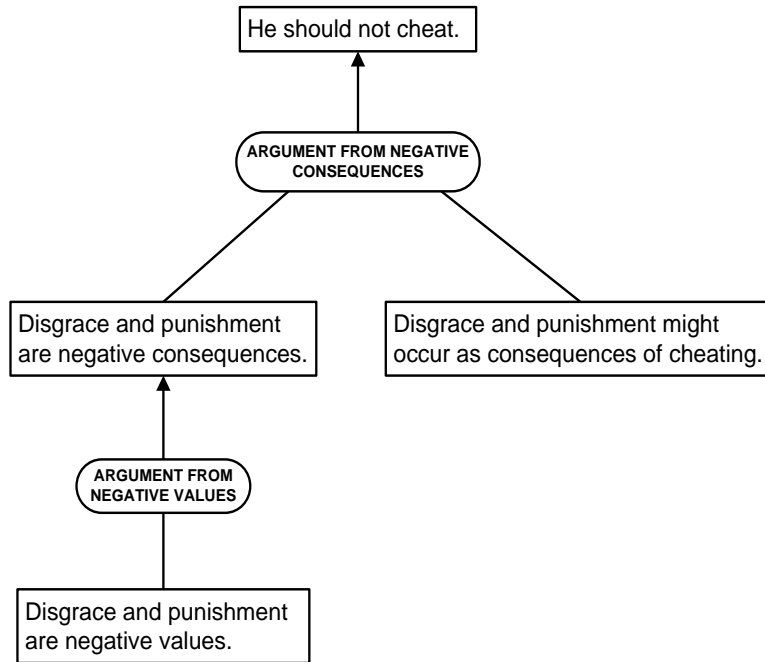


Figure 6: Reconfiguration of Argument from Consequences in Professor Example

This reconfiguration of the schemes for arguments from consequences makes it simpler to visually represent the conductive argumentation in the professor example. It also seems better generally as a well of representing common cases where arguments from values are chained to arguments from consequences. This is the recommended solution.

The second problem is to see how argument from verbal classification is connected to argument from negative values in the professor example. This is not an easy problem to solve, because the argument from values is based on an implicit classification through the use of the negative terms ‘disgrace’ and ‘punishment’ (not to mention the use of the term ‘cheating’ again). Nevertheless, in figure 7, we can summarize a large part of the sequence of conductive argumentation by showing how argument from negative consequences is based on argument from negative values, which is in turn based on argument from verbal classification.

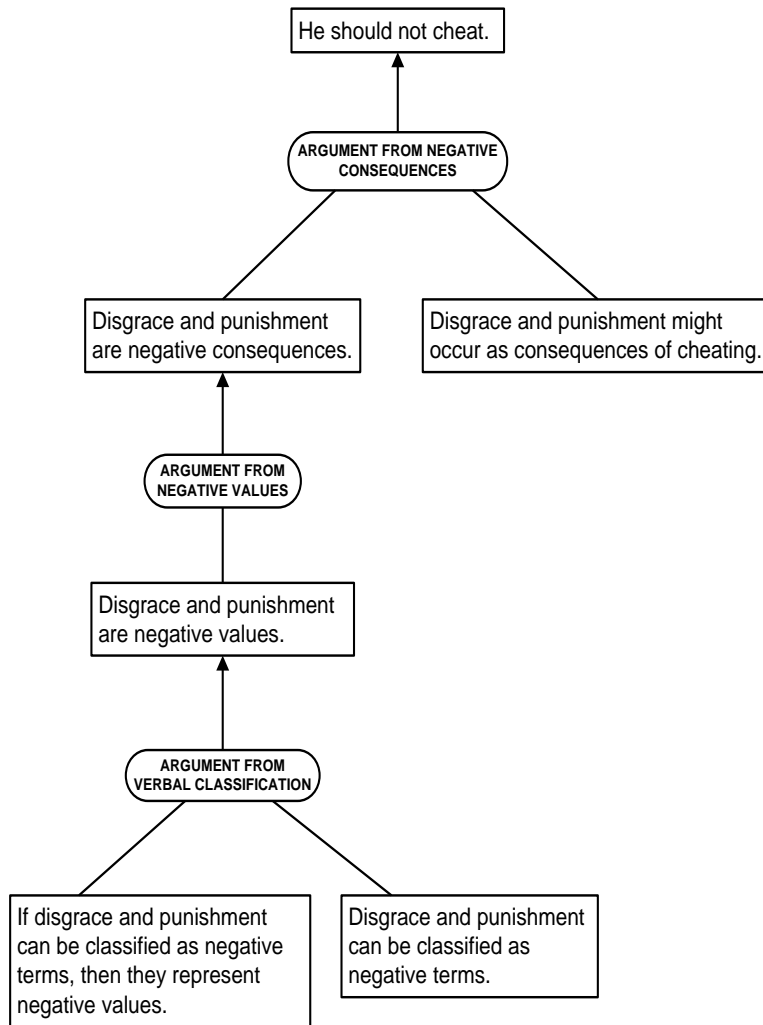


Figure 7: Incorporating Argument from Verbal Classification

Finally now this much has been done, we have to show how the whole network of argumentation is truly conducive by taking all the arguments from figure 3 through to figure 7, and showing how they can be divided into two argument networks, one on the pro side and one on the contra side, as shown in figure Con1. We will not attempt this task here, but the reader can imagine roughly how it should be done. Once this much of the structure of the argumentation on both sides in the professor example has been exposed, it is not hard to see generally how Wellman's five point process of conducive argument evaluation could work. Even though we cannot apply this process to the professor example, because it is incomplete, we can see how it is to be done, on Wellman's vision, by weighing the one argument against the other.

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