ISSA Proceedings 1998 – Ad Baculum Is Not A Fallacy!

1. Practical Arguments

Our point of departure is the practical syllogism. The invention is Aristotle's and the interpretation we give it is Anscombe's (Anscombe, 1957). As is well-known, the standard syllogism is a discursive entity, an n-tuple of declarative sentences, of which the terminal member is the conclusion and the rest are premisses. In contrast, a practical syllogism is a mixed structure, part discursive and part non-discursive. The difference shows up in the conclusions of the two structures. In a standard syllogism, the conclusion is a sentence; in a practical syllogism the conclusion is an action. It is useful to compare practical syllogisms with deontic or prudential arguments. A simple example of such is:

1. If you are late home from the movies, you'll irritate and worry your mother
2. So, you shouldn't be late.

It is easy to construct what we could call the *practical syllogisation* of this argument. It is the ordered pair in which the first member is the premiss of the deontic argument

1* If you are late home from the movies, you'll irritate and worry your mother.

and in which the second member, the conclusion, is not the sentence which *bids* the addressee *not to be late*, but is simply the addressee's not being late.Thus the conclusion of our practical syllogism is the action advocated by the conclusion of the preceding deontic argument.

The distinction between deontic-prudential arguments and practical syllogisms calls to mind the old maxim that talk is cheap. `Cheap' in turn suggests `suboptimal', and, in some respects, this is precisely what can be claimed by deontic-prudential arguments in contrast with their practical syllogisations. It is one thing to get an addressee to concede that he should do such-and-such; it is another, and often better thing, that he actually do it. Better the cheque in the mail than `The cheque is in the mail'. We may say in a quite general way that a

practical syllogism is the *consummation* of a deontic arguer's intent.

In this note we propose to expand the concept of practical syllogism in a slight but natural way. We shall attempt to show that modest though the extension might be, it produces results of genuine consequence for the theory of argument. In our proposal, a second way of being a practical syllogism is one in which one or more of the premisses is an action rather than a sentence. It is a point worth emphasising that the conclusions and, as we now may say, the *premisses* that make for practical syllogisms are *role-specific*. Any action by any agent at any time, make for a true proposition, namely the proposition ascribing that action to that agent at that time. Any of these truths is available in principle as the conclusion or as a premiss of some or other bit of argument that may chance at a time to bubble out of the dialectical soup of the human community. Such arguments are not made into practical syllogisms in consequence of this fact; for it is the actions themselves, not the sentences they make true, that are the irreducible components of practical syllogisms. In Aristotle's conception of it, the action that is the conclusion must be the action of the party to whom the argument is addressed. In our extension of it, the action that is the premiss of a practical syllogism must be the action of the maker of the argument, not his addressee. So there is an agent-specific asymmetry between, as we shall now say, *conclusionally practical syllogisms* and *premissorily practical syllogisms.*

There is a further asymmetry. Let <'P', A> be a conclusionally practical syllogism. Let 'A' be the sentence in which this action A is attributed to its agent. Then, in general, a standard syllogism <'P', 'A'> is not preservable from the practical syllogism <'P', A> under replacement of A by 'A'.**[i]** On the other hand, consider a simple case of a premissorily practical syllogism. Suppose that Joe will be elected Treasurer if and only if Henry, Sarah, Frank and John vote yes. Imagine that John is attempting to construct an argument whose conclusion is that Joe is elected. Joe adds the following true premisses.

2. 'Henry has voted yes'
3. 'Frank has voted yes'
4. 'Sarah has voted yes'.

The desired conclusion that Joe will be elected Treasurer requires a further premiss. So:

5. [John simply votes yes.]

In this, our two asymmetries are evident. For one thing, the action which serves as the clinching premiss must be John's, the speaker of the argument, rather than Sarah's or Henry's. But, secondly, if our previously practical syllogism is correct, there is a correct standard syllogism got by replacement of the action that constitutes premiss (5) of the former with the sentence `John votes yes', which correctly attributes that action to John.

Essential to both types of practical syllogism, and corresponding to the parameter of role specificity, is the element of *participant control*. If my conclusionally practical syllogism that you *do* so-and-so is good, then that it is so lies essentially in your power, not mine. All that rests with me is to show that you *should* do so-and-so. But if my intent is to produce a practical syllogism rather than a deontic-prudential argument, the premisses are up to me to select and present; but the conclusion finally is up to you. This other-party dependency is missing in the case of premissorily practical syllogisms. To recur to our example, the argument cannot succeed without premise (5), and yet premise (5) in an action entirely up to John, the person whose argument it is. Similarly, the corresponding standard syllogism has no chance without the sententialization of premiss (5), i.e. 'John voted yes'. But that premiss is true if and only if John voted yes; which, again, is entirely up to John.

2. Ad baculum reasoning

It is perhaps not surprising that fallacy theorists and argument analysts should have been preoccupied with the idea that there is something inherently defective about *ad baculum* arguments. Our own view is that those comparatively few writers are correct who, like Walton [1992] and Woods [1987], [1995], see the ad baculum as a form of prudential argument which, when bad, cannot have been made bad simply because it pivoted on the factor of threat. We lack the space to expatiate on this prudential perspective, promising as we think it is.**[ii]** Instead we shall take the Woods–Walton approach a step further. We shall show that

1. ad baculum arguments are systematically connected to premissorily practical syllogisms;
2. they are in a sense to be explained always a more benign and welcome form of argument than their counterpart practical syllogisms;
3. in vindication of something theorists such as Walton have been saying – perhaps with insufficient explicit motivation – arguments from negative

consequences are not as such ad baculum arguments (that is, ad baculum arguments are a proper subset of negative consequence arguments); and
4. (recurring to point (2)), although some theorists have been aware of the importance of utility functions in the analysis of ad baculum arguments, there are always utility-functional considerations which favour recourse to ad baculum argument over their counterpart practical syllogisms.

Let us now see how it is that our analysis of ad baculum arguments give rise to these four consequences. We consider in turn three arguments of a type well-known in the recent literature. They are:
1. collective bargaining arguments;
2. the mugger's argument and
3. anti-smoking arguments.

2.1 Collective bargaining
For expository convenience we consider a simplified case. We assume that in the present example both parties, workers and management alike, are satisfied that a threat to strike is sincere and that a strike would encumber management with higher costs than would a settlement in the near vicinity of the union's most recent offer. Even so, consider the following *action-matrix*, an ordered 2-tuple.
1. The workers strike (S)
2. The management yields (Y)

Schematically our action-matrix is
1* S
2* Y

'S' and 'Y' are abbreviations of (1) and (2), which in turn report certain action-facts. In the circumstances of the case, the episode characterised by <S, Y> is costlier to each party than an available alternative. In real-life situations, this is not always the case, of course, and in any event, calculating the actual cost-benefit spread over actual option spaces can be a fairly complex matter. Even so, we know that one of the alternatives is the one we now describe; and we also know that in general it appears to yield a better cost-benefit payoff for both parties. We represent this option as a dialogue between the workers' representative W and management's spokesman M. As before, 'S' denotes the strike-action and 'Y' management's action of yielding to the present demands of the workers.

W: ‘If ¬ Y, then S’
M: Y.

As we see, W makes an explicit threat. It is a conditionalisation of S on the negation of Y in our action-matrix <S, Y>. M’s response to W is an action, a capitulation to W’s demand. If we could think of the sequence <‘If ¬ Y, then S’Y> as an argument, then not only is it a cross-agent argument; it is a conclusionally practical syllogism. Its most distinctive feature, however, is that it is a substitute for a premissorily practical syllogism, which is what our actionmatrix <S, Y> in effect is. In the W-M dialogue (or quasi-dialogue), an action which is in the control of W to perform and which, if performed, would serve as a premiss in the practical syllogism <S, Y>, is only threatened. In our simplified example, the threat is justified on simple cost-benefit grounds. It is less costly to threaten to strike than to strike, and it is no more costly to yield to the threat of a strike than to a strike.

We propose that dialogues or quasi-dialogues of the W-M type are prototypes of ad baculum argumentation. If so, it is easy to see the systematic link between ad baculum arguments and practical syllogisms. The threat that constitutes the dialogue as an ad baculum threatens an action which is within the threatener’s power to effect, and which if effected would produce a premiss in the practical syllogism <S, …>, where … holds a place for, but does not guarantee, the appearance of the intended M-action Y.

It is also apparent that ad baculum arguments have clear advantages over the premissorily practical syllogisms, to which they are systematically linked. Here is a case in which `Talk is cheap’ is a virtue. The threat to strike possesses at least the following advantages over striking. Even an efficacious threat to strike is in general, as we have seen, a less costly inducement to yield than yielding to an actual strike. Moreover, talking about striking, rather than striking, provides the contesting partners with a larger deliberation-space than simply striking. Thus ad baculum contentions are dialectically more efficient (to say the least) than the premissorily practical syllogisms to which they are linked. We take it, then, that the characteristic features (1) and (2), cited above, may now be claimed for ad baculum exchanges. These same features will be apparent in our next example, the mugger.

2.2 The mugger

Here too, there are two parties, M, the mugger, and V, the victim, and an action-

matrix <K, T> in which K is the killing of V by M and T is M's getting V's money. As before <K, T> can be likened to a premissorily practical syllogism, and as before it is a less good thing than its counterpart ad baculum, in which the action-premiss K is replaced by a discursive premiss which threatens K. It is bad enough to be threatened with death, but for most people in most circumstances it is a better thing than death itself. The mugger's ad baculum achieves two things at once. It identifies a situation in the joint option space which itself is constituted by the premissorily practical syllogism <K, T>. And it gives the addressee the option of replacing the muggers' practical syllogism with his own cross-agent *conclusionally* practical syllogism

M: 'If ¬ T, then K'
V: T.

As before, the conclusionally practical syllogisms confers on M all the benefits conferred by the premissorily practical syllogism, yet sparing V the extreme cost of that option. Either way, V loses his money. But in only one of these ways does he lose his life.

2.3 Anti-smoking arguments
Again we simplify. We shall take it that in some non-trivial sense, habitual cigarette-smoking shortens a smoker's lifespan. If so, then we could expect to find instances of the matrix

Sm
D

('Sm' for 'The subject was an habitual smoker' and 'D' for 'The subject died earlier than would have been the case otherwise'). Is there an ad baculum counterpart of this sequence <Sm, D>? If so, it would be something like:

P1: 'If ¬ D then Sm'
P2: D

(where P1 and P2 are respectively the ad baculum-maker and his addressee.) We see that the absurdity of this reconstruction as self-announcing. This is tantamount to a proof that negative-consequence arguments are not just as they stand ad baculum arguments. If this is right, the rejection of the present example by the ad baculum model will show up in structural features of the model. If the

anti-smoking argument were an ad baculum, then the sequence

Sm
D

would be construable as a premissorily practical syllogism. For this to be so, two conditions require fulfilment. One is that Sm be an action-premiss, and the other is that Sm be the action of the *argument-maker*. But as the example shows, this is not the case. Similar difficulties, and then some, apply to the interpretation of the would-be ad baculum

P1: 'If ¬ D then Sm'
P2: D

The reader will note that we have conformed the present example to the ad baculum structure recognised in our model. It is significant that it gives rise to such nonsense. For one thing, it is hard to conceive of 'If you don't die, then you are an habitual smoker' as any kind of threat (In fact, it may be wondered what are the truth conditions of this fabulous conditional.) For another, D can hardly be represented as P2's action-conclusion, since in no direct way is his death in his own control. Thus the sequence <'If ¬ D, then Sm', D> is not representable as a conclusionally practical syllogism. We see, then, that if we opt for an analysis of the ad baculum in which premissorily and conclusionally practical syllogisms play a load-bearing role, the anti-smoking argument cannot be made out to be ad baculum. Central to this result is the fact that even if Nature herself threatens a certain fate for the smoker and even if I know this, I cannot threaten the same thing on Nature's behalf, so to speak.

The same holds of Pascal's Wager, in which the Wagerer cites God's threat to the Christian sceptic. But citing a threat is not making a threat. Once cannot issue God's threats, except that one is God, anymore than one can catch Yogi Berra's catches except where one is Yogi Berra. We conclude, therefore, that contrary to recent speculation to the contrary (Woods,1987 and 1995), Pascal's Wager is not an ad baculum for Pascal, though it would be for God. This being so, Walton is right to say, in effect, that negative-consequence arguments and ad baculum arguments share no more intimacy than a set-theoretic intersection which chances to be a proper subset of each.

We said that utility functions play an important role in the analysis of practical

argument. At one level, there is a constant utility-functional component. The arguer seeks to give the addressee the option of conceding, hence of avoiding the cost of looking stupid (not to put too fine a point on it). In other respects, utility-functions bite more differentially. When the mugger makes an intervention ad baculum, he is predicting his victim's deployment of utility functions in a context of menace imposed by the mugger himself. But, as we have already suggested, there is a further respect in which ad baculum arguments are the result of utility functions of both arguer and addressee alike. For the arguer to forward an ad baculum is a reflection of a cost-benefit analysis which induces the arguer to favour the ad baculum over its counterpart premissorily practical syllogism. On the other hand, the ad baculum-maker also anticipates a favourable cost-benefit determination by his addressee in which it is obviously preferable to yield a benefit under threat of death than to suffer the loss of the benefit as a result of one's death.

The above discussion shows that utility, actions and time play a central part in our understanding of the ad baculum. The underlying logical model is propositional logic enriched by temporal flow and action symbols. The next section develops such a model in some generality. Such models can be applied to other areas such as the analysis of natural language conditionals, but we shall leave that for another time. Because space is limited we shall not dwell in detail on the way the analysis of Sections 1 and 2 is represented in the model. It will, in any case, be obvious to the interested reader. We shall also give a fairly realistic example.

3. Description of a Basic Model

We imagine that we are moving through a flow of time. Time is discrete (day after day?) and moves by the performance of actions. So if we are at time t we can move to time t+1 by performing some action a.

Let us assume we have two players A and B. A is capable of actions $a_1, a_2, a_3, \ldots$ and B can do $b_1, b_2, b_3, \ldots$. Since time moves by actions, assume we are now at state (time) t. The database (description of the world at) is a theory Δt, in the language of a logic L, which can be classical logic. We move to state t+1 by someone, e.g. A performing actions $\{a_{t,j}, b_{t,g}\}$, if A performs $a_{t1}, a_{t2}, \ldots$ and B performs $b_{t1}, b_{t2}, \ldots$ each action has preconditions α_x and postconditions β_x. The action is *allowed* at time t if $\Delta_t \vdash \alpha_x$. If the action is allowed and it is performed then at t+1, β_x holds. The new theory is Δ_{t+1}.

We should note that if D_t partially describes the state of the world at t then Δ_{t+1} is an update of D_t; in symbols

$$\Delta_{t+1} = \Delta_t *\beta_x$$

where $*$ is an update operation only when β_x is consistent with Δ_t do we have $\Delta_{t+1} = \Delta_t \cup \{*\beta_x\}$.

The operation $*$ can be assumed to satisfy some rationality postulates, e.g. AGM, or to be given by some specific algorithms. We also assume that we have cost functions $U_A(\Delta_t) U_B(\Delta_t)$, giving a $ (positive or negative) number which is a utility value for each player at time t. So for example player A may be unhappy with $?_t$. He may perform action $a = (\alpha_a, \beta_a)$ such that $UA(\Delta_t) < UA(\Delta_t *\beta_a)$.

3.1 Example

A and B are arguing about something. The database contains

1. p ^ q -> r
2. p

B is desperate to deduce r. He controls an action whose postcondition is q. By performing this action he is practically inserting q into the database and thus

enabling the deduction of r. In the language of Section 1, B is in the process of constructing a premissorily practical syllogism.

3.2 Example

Jobless John (JJ) has an old car which he insured with the Universal Insurance Company. According to the terms of the insurance his coverage expires December 31st 1990. As is common practice with many insurance companies, if JJ pays his premium by 31.1.91, his insurance coverage is renewed from 1.1.91 to 31.12.91. So for example, if JJ forgets to pay on 1.1.91 and has an accident on 15.1.91, he can still pay his premium on 20.1.91 and be covered on the 15.1.91 accident.
In our story, JJ has no money and does not pay his premium. On 15.1.91 he bumps into Richy Rich's (RR) Rolls Royce, causing extensive damage. RR now has a problem. It is clear that JJ cannot pay his premium. If he doesn't, then he is not covered, and RR cannot collect from JJ's company. RR cannot of course collect from JJ. On the other hand, RR collects from his own insurance company, he will lose his 56% no-claims bonus. Let us give some utility values.

JJ's premium is $500
RR loss of the no-claims bonus is worth $3000
RR damage is assessed at $8000.

It is clearly worthwhile for RR to pay JJ's premium provided JJ is co-operative. We assume the factual circumstances of the accident, D accident, strongly support of q = 'J is at fault'. This means that the database can probably prove that JJ is at fault even if JJ denies fault. However, it is much simpler if q1= 'JJ admits fault' is available. Let us now construct the story formally.

3.3 Propositions

p = JJ damages RR's car
q = it is JJ's fault
q1 = JJ formally admits fault.
c = JJ is covered
r = JJ insurance *pays*
D*accident* = facts about accident

3.4 Actions

3.4 Actions

b = RR gives JJ $750.
α_b = q1 holds and furthermore JJ commits to perform action a.
β_b = JJ performs action a.
a = JJ pays his premium before 31.1.91
α_a = RR gives JJ $750.
β_a = c

Let t_0 = accident time and let Δ_{t0} be the following database:

1 $p \wedge q \wedge c \rightarrow r$
2 $\Delta_{accident}$
3 p
4 $q_1 \rightarrow q$

RR wants r to follow. For that he needs to generate q and c. The simplest course of action is for JJ to make q1 true at t+1 and give a commitment to perform a, then get $750 from RR, then go ahead and perform a; and then RR can claim from the insurance company. JJ can threaten RR that he will not renew his insurance unless he receives $750 from RR. This is a legitimate threat. Although JJ is at fault and may face a damages claim from RR, it is clear that simply by not renewing his insurance, he creates a premissorily practical syllogism of particular consequence for RR. This is why, in effect, RR is trying to persuade JJ to produce a different premissorily practical syllogism, in which the practical premiss of not renewing is replaced by its action-negation.

We can now summarise what an *ad baculum* fallacy is. It is *not* a fallacy. At worst it is an incompetent threatening move, which is either illegal (since preconditions do not hold) or ineffective (since it has a low utility threat for the postcondition).

NOTES

i. That this is so is indicated by the fact that the more natural candidate for the standard syllogistic counterpart of the present practical syllogism would be the deontic argument whose conclusion is, ‘You ought to do A’.

ii. But see Wreen [1995].

REFERENCES

Anscombe 1957. *G. E. M. Anscombe, Intention*, Ithaca: Cornell Univeristy Press.

Walton 1992. Douglas Walton, *The Place of Emotion in Argument*, University Park: The Pennsylvania State University Press.

Woods 1987. John Woods, “Ad Baculum, Self-interest and Pascal’s Wager”, In: Frans H. van Eemeren et al. (eds.), *Argumentation: Across the Lines of Discipline*, Dordrecht: Foris, 343–349.

Woods 1995. John Woods, “Appeal to Force”, In: Hans V. Hansen and Robert C. Pinto (eds.), *Fallacies: Classical and Contemporary Readings*, University Park: The Pennsylvania State University Press, 240–250.

Wreen 1995. Michael Wreen, “Knockdown Arguments”, *Informal Logic* 17, 316–336.