On Normative Practical Reasoning

Georg Spielthenner

The University of Zambia
georg_spielthenner@yahoo.de

Abstract
This article offers an analysis of normative practical reasoning. Reasoning of this type includes at least one normative belief and it has a practical conclusion (roughly, a conclusion about what to do). The principal question I am interested in is whether this type of practical reasoning can be logically conclusive. This issue has received remarkably little philosophical discussion despite the central role this reasoning plays in our everyday discourse about action and in the resolution of ethical problems. I distinguish three kinds of normative reasons. Quasi-normative reasoning, I maintain in Section 1, can only be valid if it is in fact theoretical reasoning, despite appearance to the contrary. In Section 2, I argue that there are two kinds of genuine normative reasoning (purely normative reasoning and hybrid reasoning) that can be logically conclusive. This article also shows that practical arguments are non-trivially ambiguous (which has been largely ignored in the literature) because they can at the same time express different pieces of practical reasoning that have a different logical status.

Practical reasoning is, in short, reasoning about what to do. It is, however, a many-faceted activity that involves at least three different types of arguments, which it is important to keep apart. By 'practical reasoning' one can refer to a pattern of reasoning in which the premises and the conclusion are norms. This type of practical reasoning is studied in deontic logic. A second type of practical reasoning is *instrumental* reasoning. That is, roughly, reasoning to the realization of the agent's ends. In this article, I have nothing to say about these two types of reasoning. But by 'practical reasoning' one often understands a pattern of reasoning that has a normative belief (e. g., a belief that something is obligatory, permitted or forbidden) amongst its premise-states and that has a practical conclusion. John Broome (2001) has called such reasoning *normative* practical reasoning (hereafter, normative reasoning).

Philosophers have written a great deal on instrumental reasoning, and there is also a large literature on the kind of reasoning that is studied in deontic logic. But there is a much more limited literature on normative reasoning. This relative neglect is regrettable because this type of reasoning is not only prevalent in our everyday practical discourse, it is also of considerable ethical relevance. On a widely held view, ethical reasoning consists (at least partly) in a derivation of normative conclusions from ethical principles and statements of facts, which yields exactly the type of reasoning that is under consideration in this article.

The discussion of normative reasoning goes back to Aristotle's sketchy treatment of so-called practical syllogisms. He infers, for instance, from the premises "I should make something good" and "A house is something good" the conclusion that a house is being made (*De Motu*

Animalium 701a16-17).[1] In the 20th century, Georg Henrik von Wright explored the varieties of practical reasoning and he also examined some examples of normative reasoning. He holds, for instance, that the argument "*A* must do *x*. Unless *A* does *y*, he cannot do *x*. Therefore *A* must do *y*" represents a logically valid piece of reasoning (1983, p. 13). Considering the obvious philosophical importance and interest of normative reasoning, it is surprising that it has received relatively little attention in the contemporary philosophical literature. The most interesting recent treatment, of which I am aware, is by John Broome (2001). In this paper, he "tentatively proposes" that normative reasoning is a logically correct (valid) type of practical reasoning, even though he admits that his arguments for this view are slender, and he considers his research as preliminary only (p. 181).

Against this background, the aim of this article is now simple to state. I try to determine whether normative practical reasoning can be logically valid. To achieve this aim, I distinguish between three different types of normative reasoning, which I shall consider one by one. I start (in Section 1) with *quasi*-normative reasoning, Sections 2 and 3 are then concerned with two versions of genuine normative reasoning. *Quasi*-normative reasoning, I shall maintain, is only valid if it is a form of theoretical reasoning. But I shall argue that the two versions of genuine normative reasoning can be logically valid. By showing that practical arguments are non-trivially ambiguous (because they can at the same time express different pieces of practical reasoning that can have a different logical status), this article also demonstrates the importance of distinguishing between *arguments* and pieces of *reasoning* – a distinction that has been widely ignored in the literature on practical reasoning. For simplicity of presentation, I have sought to set out my position in a non-technical way. But for the sake of brevity and clarity, some formalization has been unavoidable.

1   *Quasi*-normative Reasoning

Normative reasoning is, like all reasoning, an activity that takes place in the reasoner's mind and it takes us from existing states of mind, the "premise-states", to a new state, the "conclusion-state", to borrow Broome's (2001, 176) terms. As I have already mentioned, normative reasoning implies that at least one premise-state is a normative belief. Let me illustrate the role of normative beliefs in this type of reasoning by adapting one of von Wright's (1983) examples. Suppose you believe that it is *A*'s duty to make the hut habitable. You also believe that unless *A* heats the hut, he cannot make it habitable; and therefore you conclude that it is *A*'s duty to heat the hut (p. 14). This is a description of a simple piece of reasoning. One of your premise-states is the normative belief that it is *A*'s duty to make the hut habitable. The second premise is a descriptive belief; and the reasoning takes you from the two "premise-states" to a "conclusion-state".

Normative beliefs are, as beliefs in general, psychological attitudes and as such they have *contents*, which I take to be propositions.[2] The content of your first premise (i. e., the proposition that it is *A*'s duty to make the hut habitable) can be *expressed* by the sentence 'It is *A*'s duty

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[1]Other examples of Aristotle's treatment of normative reasoning can be found in the *Ethica Nicomachea* 1147a25-30, *De Anima* 434a15-20, the *Metaphysics* 1032b8-10, and *De Motu Animalium* 701a13-14. See also Thornton (1982).

[2]This view is not uncontroversial. Some authors have doubted that the contents of intentional states are always propositions. For instance, Rabinowicz and Rønnow-Rasmussen (2004) hold that also *things* and *persons* can be the contents of such attitudes (p. 393), and von Wright (1963, 160) holds that their object is a *state of affairs*. But others have convincingly argued that beliefs and preferences are *propositional* attitudes. We do, for instance, not prefer coffee to tea as such but rather drinking coffee to drinking tea (Hansson, 2006); and Searle (2001) holds that "all desires have whole propositions as intentional contents (thus 'I want your car' means something like 'I want that I have your car') ..." (pp. 248-9).

to make the hut habitable'. The point to emphasize now is that expressions of normative beliefs can be given a purely *descriptive* interpretation, despite the fact that they often contain deontic terms. On such an interpretation, the sentence 'It is A's duty to make the hut habitable' can be understood as saying that there exists a norm to the effect that A has a duty to make the hut habitable (see von Wright 1983, 131-2). To put it differently, if you believe that there exists the norm that A has a duty to make the hut habitable you can *express* this belief by saying 'It is A's duty to make the hut habitable'. Although this sentence contains the term 'duty', it does not express a valuation but is what von Wright (1983) calls a *normative statement*. A normative statement is a statement in the strict sense, i. e., a sentence that is either true or false.[3] In our example, the normative statement is true if there exists a norm that requires A to make the hut habitable and it is false if no such norm exists.[4]

In short, when we believe that p ought to (can or must not) be done then the content of our belief is sometimes the proposition that there is a norm to the effect that p is obligatory (permitted or forbidden), and the *expression* of this belief is then a statement in the strict sense, even if it contains deontic terms such as 'ought' or 'should'. In such cases, I shall argue in the following, the reasoning only *appears* to be normative. I therefore dub it *quasi*-normative reasoning.[5]

But before we proceed, two further introductory remarks should be made. First, it seems that we need to clarify what exactly the conclusion of a piece of practical reasoning is. There is fundamental disagreement in the philosophical literature over this issue. Some hold that it is an action (Anscombe 1963), while others reject this as inadequate and contend that it must be an intention (Broome 2001), a decision (Searle 2001), an imperative (Gensler 1996), a desire (Audi 2001), or a normative judgement (Clarke 1985).[6] However, since nothing substantial in this essay hinges on this issue, we need not try to settle this dispute here, and I shall assume that the conclusion is a desire to do something.[7] Second, since I shall claim that some modes of normative reasoning are valid while others are not, I need to briefly outline when, on my view, practical reasoning (and therefore also normative reasoning) is valid. The details of this are more than we need, but here is the basic idea.[8]

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[3] According to von Wright (1983), a normative statement is "a statement to the effect that something ought to or may or must not be done" (p. 67). For example, by saying 'You must not park on this side of the street', we may make the statement that there is a by-law or regulation prohibiting it, which is true or false.

[4] It should be noted that this is not the only possible descriptive interpretation of a deontic sentence. In the example "A ought to make the hut habitable. Unless A heats the hut, he cannot make it habitable. Therefore A ought to heat the hut", the deontic sentence 'A ought to heat the hut' can plausibly be interpreted as meaning that unless A heats the hut it will not become habitable, which is again a statement in the strict sense. See also Raz (1999, 171-177) who discusses the use of normative statements in legal reasoning.

[5] That normative sentences can be given a descriptive interpretation is a widely held view among writers on ethics and there is a vast literature on this topic. The *locus classicus* is probably Hare (1952). He holds that value judgements are often used for conveying purely factual information (p. 112) and he distinguishes different ways in which sentences can be used descriptively – e. g., by using them in an "inverted-comma sense" (p. 165). Among the many other authors who accept this view are Edwards (1955) who claims that 'X.Y. is a good person' can be used for stating that he is loving and free from envy (p. 147), and Stevenson (1944) who argues that saying that X is a good college president can be tantamount to saying that he is an industrious and honest executive (p. 208). The distinction between prescriptive and descriptive interpretations of normative sentences has also played a major role in the discussion whether normative conclusions can be derived from purely factual premises – see, e. g., Black (1964) and Genova (1973).

[6] This issue has been extensively discussed by others. See, for instance, Barnes (1983), Clarke (1985) and von Wright (1963; 1983).

[7] As usual in philosophy, that I take 'desire' here as an umbrella term that can stand for any type of evaluative attitude, not only for some strong wishes or cravings.

[8] I have provided a more detailed discussion of practical validity in (Spielthenner 2007). In the present article, I take it for granted that a piece of practical reasoning can be logically valid. This view is by no means beyond dispute. Many logicians and philosophers endorse it (e. g., Kenny 1978 or Broome 2001), but several writers have argued against it

Like reasoning in general, practical reasoning is valid if (and only if) the set consisting of the premises and the negation of the conclusion is *inconsistent*. For definiteness, let me state this basic fact in the following principle of valid practical reasoning.

(P) A piece of practical reasoning that consists of the premises $P_1, \ldots, P_n$ and the conclusion C is valid *iff* the set $\{P_1, \ldots, P_n, \neg C\}$ is inconsistent.

This basic idea has been expressed in different ways. Searle (2001) holds that the acceptance of the premises of a valid practical argument "*commits* one to the acceptance of the conclusion" (p. 241); according to Gensler (1996, 16), inconsistency of the premises and the conclusion means that we *ought not to* combine accepting the premises with accepting the conclusion; and Richard Hare contends that "he who assents to the premises is compelled not to dissent from the conclusion, on pain of logical inconsistency."[9]

Of course, for such a characterization to be illuminating, an explanation of "inconsistency" should be given. Since practical inconsistency implies that *different* propositional attitudes (beliefs and valuations) are incoherent, it is not plain when the premises of a piece of practical reasoning and the negation of its conclusion are inconsistent. However, for lack of space I shall attempt to make this notion intuitively clear by going through a simple example, rather than explicate it.

Let it be assumed you argue that Catholics should go to church today because they are obligated to go to church on Sundays and today is Sunday. The first premise of your reasoning is the true normative belief that Catholics are obligated to go to church on Sundays. That is to say, the content of your normative belief is the true proposition that Catholics are obligated to go to church on Sundays.[10] No matter what we take the conclusion of your reasoning to be, it is easy to see that you are *not inconsistent* if you believe the premises but deny the conclusion. More concretely, if you believe that Catholics are obligated to go to church on Sundays (i. e., you believe that there is a norm that requires them to do this), and you believe that today is Sunday, but you do not desire that Catholics go to church today, you are *not* in a state of mental incoherence of the same nature as logical inconsistency.[11] According to P, the reasoning is therefore invalid.

In order to see things in a clearer light, let us consider what conclusion *is* entailed by the premises. Schematically, your premises can be stated as follows (putting their contents in brackets and writing 'B' for 'I believe that' because we assume that you verbalize your reasoning to yourself in the first person).

(1)   B (Catholics are obligated to go to church on Sundays).

(2)   B (Today is Sunday).

If you infer from these premises that Catholics are obligated to go to church today – that is, if your conclusion is 'B (Catholics are obligated to go to church today)', then your reasoning is

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(e. g., Mitchell 1990). Since a consideration of this issue would take us beyond the confines of the present work and I have argued for the validity of practical arguments elsewhere (see Spielthenner 2008), I will not pursue this issue further here.

    [9]Quoted from Kenny (1978, 75).

    [10]Canon 1247 of the *Codex Iuris Canonici* states that "on Sundays and other holydays of obligation, the faithful are obliged to assist at Mass."

    [11]That *quasi*-normative reasoning does not allow drawing a practical conclusion has also been held by Mackie (1977). In a somewhat different context he writes that "the statement that a certain decision is thus just or unjust will not be objectively prescriptive: in so far as it can be simply true it leaves open the question whether there is any objective requirement to do what is just or refrain from what is unjust, and equally leaves open the practical decision to act in either way" (pp. 26-27).

valid (because the contents of your premise-states entail the content of your conclusion-state). But your conclusion is *not* practical. It is rather a belief that something is obligated. You can, of course, *express* this belief by saying that Catholics *should* go to church today, but the use of so-called deontic terms does not *eo ipso* render your conclusion *practical*. It is a common mistake to think that expressions that contain deontic terms are thereby normative expressions.

The upshot of what I have said so far in this section is that *quasi*-normative reasoning can be valid, but if it is valid it is not practical reasoning but *theoretical* reasoning. Practical reasoning should provide a reason for doing something, not for believing it. But the reasoning under consideration can provide only reasons for believing that Catholics have an obligation to go to church, not for desiring that they go to church.

I envisage the objection that this result is counter-intuitive. After all, it seems that deontic logic can show that, in our example, the contents of the premises entail a normative conclusion and the reasoning seems therefore genuinely normative. To see that holding this is a mistake, let us formalize the reasoning. Let 's' mean 'Today is Sunday' and let us use 'c' for 'Catholics go to church today'. The deontic operator 'O' is to be read 'it is obligatory that'. If we symbolize the reasoning as suggested we obtain $B(s \rightarrow Oc), Bs \models B(Oc)$. On the left side of '$\models$' (the "double turnstile") are the premises of the reasoning and on its right side is the conclusion. Now, according to the standard system of deontic logic, the content of the conclusion (i. e., Oc) follows from the contents of the premises. That is to say, the argument $s \rightarrow Oc, s \models Oc$ is logically correct and therefore the reasoning $B(s \rightarrow Oc), Bs \models B(Oc)$ is valid.[12] The content of the conclusion appears to be a *norm*, and therefore the reasoning seems to be practical.

My response to this objection is that deontic operators can be (and sometimes *must* be) descriptively interpreted, and that the appropriate logic of *quasi*-normative practical reasoning is deontic logic *descriptively* understood.[13] In the present context, the expression '$B(Oc)$' stands for 'I believe that Catholics are obligated to go to church today'. But on the assumed descriptive interpretation, the content of your belief is the proposition that there exists a norm to the effect that Catholics are obligated to go to church today. The expression of this belief is therefore a statement of fact. Hence, deontic logic cannot be used to show that we can derive a *practical* conclusion from the contents of your premises.

Let us take stock. It has been my contention in this section that there is a type of reasoning that can be valid if it is *theoretical* reasoning, but that is invalid if it is *practical* reasoning. This may appear so obviously true as to be hardly worth saying. But it is, I submit, worth empha-sizing because in our practical thinking we are inclined to confuse *quasi*-normative reasoning with genuine normative reasoning. Not only philosophical laymen are commonly unaware that sentences such as 'S ought to ϕ', 'S must not ϕ', or 'S has an obligation to ϕ' can be simple statements of fact. I think that not distinguishing between the descriptive and the prescriptive interpretation of such utterances has also caused mistakes in the philosophical literature.[14]

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[12]The correct symbolization of hypothetical norms is a notorious problem. Different symbolizations have been proposed, but none has firmly established itself. I have here chosen '$s \rightarrow Oc$', which is only one possibility.

[13]In deontic logic, the distinction between a descriptive and a prescriptive interpretation of formulas such as $O\phi$ (it is obligatory to ϕ) or $P\phi$ (it is permitted to ϕ) has been commonly ignored. Even as careful a writer as von Wright (1983) – one of the founding fathers of modern deontic logic – had to admit that in his earlier writings he had conflated a "logic of norms" (i. e., a prescriptive interpretation) with a "logic of norm-propositions" (i. e., a descriptive interpretation).

[14]See, for instance, Gensler (2002) who holds that "thinking that A is wrong and at the same time acting with the intention of doing A" is inconsistent (p. 217). This is not correct if 'A is wrong' is descriptively interpreted.The importance of *quasi*-normative reasoning can also be seen from the fact that many of our "hypothetical imperatives" seem to be best understood as elliptical pieces of this type of reasoning (see von Wright 1983, 199-200). Suppose you believe that Jones wants to make a favourable impression at his job interview, and you believe that he can only make such an impression if he gets a haircut. On the basis of these premises you hold that Jones ought to get a haircut.

In passing, I wish to mention that also so-called ethical principles admit of a descriptive analysis. The content of a physician's ethical belief that doctors ought to act in the best interest of their patients may be expressible by the normative statement that medical codes of ethics require physicians to act that way. If a physician only believes this proposition but does not value it, he is *not inconsistent* if he holds this normative belief but does not act in the best interest of his patients.

2   Genuine Normative Reasoning

The aim of this section is to discuss, from a logical point of view, two kinds of normative reasoning that are genuinely practical. That is to say, their conclusion is valuational rather than a mere belief.

2.1   Purely normative reasoning

The type of reasoning I propose to call purely normative reasoning represents the opposite of *quasi*-normative reasoning. If you believe that you ought to ϕ and your reasoning is *quasi*-normative, then you believe something about ϕ-ing but you do not value it. On the other hand, if your reasoning is purely normative, your conclusion-state is a desire, not a belief. That is to say, if you express your conclusion by saying 'I ought to ϕ' you express your valuation of ϕ-ing but you do not make a statement about ϕ-ing.[15] For instance, by holding that you should lose weight, you may only express your desire to reduce without making any statement about weight loss.

Purely normative reasoning comes in two main versions. (i) In the more prevalent form, the reasoner values the *content* of a norm. Let a simple example serve to illustrate this. Jones holds that he must stop smoking. Schematically, we can write this as follows: Jones holds that (it must be the case that (Jones stops smoking)). What Jones values is the proposition that he stops smoking, not the proposition that it must be the case that Jones stops smoking. By saying 'I must stop smoking', Jones may only express his pro-attitude towards the proposition that he stops smoking, without stating, say, that it can cause cancer.

(ii) Sometimes, however, a reasoner values the normative status of a proposition (i. e., that it is forbidden, permitted, or forbidden). Suppose I hold that so-called partial birth abortions ought to be forbidden. Writing this schematically, we get: I believe that (it ought to be forbidden that (partial birth abortions are performed)). In this example, I value the fact that this type of abortion is *forbidden*. (My desire may be due to what I believe about partial birth abortions. But this *reason* for my valuation is not part of the content of my normative belief.) That is to say, by holding that partial birth abortions ought to be forbidden, I may only express my pro-attitude towards *forbidding* it, without making a statement about it. Thus, reasoning based on such a type of normative belief is purely normative.

To assess this type of normative reasoning from a logical viewpoint, let us analyse a concrete example. Suppose you put forward this argument: "Organ transplants should not only be available to the rich. But if human organs are allowed to be sold, only the rich will be able to afford them. The selling of human organs should therefore not be allowed." This is a linguistic expression of your reasoning. To assess it, we need to go from the linguistic level to the mental

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However, the content of your conclusion-belief may be the proposition that Jones will only attain his aim of making a favourable impression if he gets a haircut (which you express by saying 'Jones ought to get a haircut'). Hence, the reasoning may be *quasi*-normative reasoning without any normative force.

[15]This article has been written on the basis of my expressivist meta-ethical position. But it is not tied to it. Upon changing what needs to be changed, my exposition is understandable on the background of other meta-ethical views, too.

level. After all, reasoning is a mental process and the premises and the conclusion are mental states.

We can plausibly assume that the sentence 'Organ transplants should not only be available to the rich' is not a normative statement but expresses your disvaluing of the proposition that organ transplants are only available to the rich. Obviously, if you disvalue this proposition, you can express yourself by uttering the sentence 'Organ transplants should not only be available to the rich'. Schematically, we can therefore state the first premise of your reasoning as follows: Des (Organ transplants are not only available to the rich) – writing 'Des' for 'I desire that'.

The second premise expresses your descriptive belief that only the rich will be able to afford organ transplants if human organs are allowed to be sold. We can write this as B (If human organs are allowed to be sold only the rich will be able to afford them).

Let it be assumed that the conclusion of your argument is not a statement but a normative sentence that expresses your disvaluation of the proposition that the selling of organs is allowed. (As will become apparent below, only on this assumption is the reasoning under consideration valid.) This disvaluation can be *expressed* by uttering the sentence 'The selling of human organs should not be allowed'. Again, we can write the conclusion more exactly as Des (The selling of human organs is not allowed). We can describe now your reasoning as follows:

(1) Des (Organ transplants are not only available to the rich).

(2) B (If organs are allowed to be sold, only the rich will be able to afford them).

Thus, (3) Des (The selling of human organs is not allowed).

The reasoning is valid. I think this is intuitively obvious, but it will be helpful to have a closer look at it by applying the principle of valid practical reasoning that I have stated in Section 1. I said that a piece of practical reasoning is valid *iff* the set consisting of the premises and the negation of the conclusion is *inconsistent*.

Let us assume that you hold the premises, but you negate the conclusion. That is to say, you *desire* (i) that organ transplants are not only available to the rich, you *believe* (ii) that they are available only to the rich if human organs are allowed to be sold, and at the same time (iii) you negate the conclusion (which is equivalent to either being indifferent between selling and not selling them or desiring that their selling is allowed). Let us take the second possibility (the reasoning for the first is analogous). I think it is clear that desiring (i), believing (ii) and at the same time desiring that human organs are allowed to be sold, is being in an incoherent state of mind that is tantamount to inconsistency. This is not to say that it is impossible that a person may entertain all of them. But it is a logical mistake because if you negate the conclusion the content of this negated conclusion (i. e. the proposition that selling of human organs is allowed) logically entails that your desire that organ transplants are not only be available to the rich is frustrated; and, on the other hand, if you assent to the conclusion, its content (i. e. the proposition that selling of human organs is not allowed) logically entails that this desire is satisfied. Given the premises, denying the conclusion is, to adopt a term from I. Kant, an "inconsistency in will".

For definiteness and to make the notion of valid practical reasoning clearer, let me symbolize the reasoning using '*r*' for 'organ transplants are only available to the rich' and '*s*' for 'the selling of human organs is allowed'. On a suggested interpretation we get $Des(\neg r), B(s \leftrightarrow r) \models Des(\neg s)$. (Notice that we need to formalize the second premise as a *biconditional*; a conditional does not make the reasoning valid.) This reasoning is valid because the set consisting of the premises and the negated conclusion is *inconsistent*. That is, the set $\{Des(\neg r), B(s \leftrightarrow r), Des(s)\}$ is inconsistent. It is, however, not inconsistent because it is impossible that a person holds all

members of this set at the same time. It is rather inconsistent because there is a special logical relationship between the *contents* of the premise-states and the *content* of the conclusion-state. In short, this relationship is such that (i) the content of the negated conclusion (in our example '*s*') entails, together with the content of the descriptive premise, the proposition *r* (that transplants are only available to the rich). That is, the negated conclusion logically leads to a *frustration* of your desire that transplants are *not* only available to the rich. This can easily be seen when we consider the argument consisting of these contents: $\neg r, s \leftrightarrow r \models s$. Obviously, *s*, together with $s \leftrightarrow r$, entails *r*. (ii) On the other hand, the content of the conclusion (i. e., $\neg s$) entails, again together with $s \leftrightarrow r, \neg r$. That is to say, the conclusion logically implies that your desire (that transplants are not only available to the rich) is *satisfied*. A piece of practical reasoning is valid if both conditions are satisfied.

I have said that a reasoner sometimes values the normative status of a proposition – e. g., the proposition that partial birth abortions are *forbidden*. It is not difficult to see that such reasoning can also be valid. For instance, if the sentence 'Partial birth abortions should be forbidden' expresses the reasoner's desire that they are forbidden, then the reasoning is analogous to the type we have discussed above. To avoid tedium, I shall not discuss here the details of this kind of reasoning.

It should be easy to see at this point that in purely normative reasoning, validity does not depend on normative beliefs. They are, in fact, redundant. Returning to our example, whether you *believe* that organ transplants should not only be available to the rich is logically immaterial. What matters is that you *disvalue* their being available only to them. The conclusion was entailed by this disvaluation and a *descriptive* belief. But in the next subsection we shall see that sometimes normative beliefs *are* relevant to the validity of normative reasoning.

2.2   Hybrid normative reasoning

In Section 1, it will be remembered, I have said that the expression of a normative belief can be a statement and that such beliefs do not entail a practical conclusion. In the previous subsection, on the other hand, I have shown that normative sentences are sometimes not statements but only expressions of the reasoner's valuation. In other words, deontic sentences can be descriptively or prescriptively interpreted, and since the 'or' is here inclusive, there is the possibility that a deontic expression does both, stating a fact and expressing a valuation. Strictly observing the *distinction* between descriptive and prescriptive discourse does not imply holding that deontic expressions cannot be given "both a prescriptive and a descriptive interpretation" (von Wright 1983, 201). That is to say, the sentence '*S* must not ϕ' can express the (true or false) belief that ϕ-ing is forbidden and at the same time it can express the reasoner's disvaluing of *S*'s ϕ-ing.[16]

To make this clear, let us consider an example. John believes that he ought to divide the money equally. He can express this belief by saying 'I ought to divide the money equally'. Now, by saying this, he can make a statement (e. g., the statement that there exists a norm

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[16]That a sentence can be at the same time a factual statement and a normative expression is not obvious. Some further points will be helpful to make this view more plausible. This doctrine was (among others) defended by Hare (1952) who holds that a normative sentence like 'I ought to do X' can be a mixture of one (or more) statements *and* a value judgement (p. 167). We may use one of his examples (which I have slightly adapted) to make this view clearer (see p. 122). The sentence 'This is a good egg' can be used for expressing the belief that it is not decomposed (its descriptive use) and at the same time it can express a favourable attitude towards the egg (its evaluative use). A similar view has been held by Hampshire (1949) who argues that the normative and the descriptive element of moral judgements are often almost inextricably combined (p. 480).

which requires him to divide the money equally)[17] and at the same time he can express his pro-attitude towards dividing the money equally. I shall call reasoning of this type *hybrid* normative reasoning.

In hybrid reasoning, we have always a least one premise or a conclusion that is both descriptive and valuational. Notice, however, that these two aspects need not be equally salient. Sometimes the descriptive component is dominant (e. g., when a doctor tells his patient that he must take his blood pressure medication), sometimes the valuational component is central (e. g., when the patient holds that he must take his blood pressure medication).[18]

I move now on to discussing the logical assessment of hybrid reasoning, a topic largely unexplored. As we shall see, in a logical evaluation we need to employ different logical systems, and the result of our assessment may not be straightforward because this type of reasoning can be both valid and invalid, albeit in a different sense.

To see when hybrid reasoning is valid, let us analyse a simple piece of reasoning. Jones argues "I should not drive my car because drunken driving is wrong and I have been drinking". It will be helpful to restate it schematically as follows:

> (1) Drunken driving is wrong.
>
> (2) I have been drinking.
>
> Thus, (3) I should not drive my car.

This argument is an expression of Jones' reasoning. We assume that this reasoning is hybrid. Its assessment requires then that we separate the *quasi*-normative reasoning from the purely normative reasoning and evaluate them individually.

(i) *Ex hypothesi*, Jones holds the statements 'Drunken driving is wrong' and 'I have been drinking'. The conclusion follows only if 'I should not drive my car' is descriptively understood – for instance, as an expression of the belief that it is forbidden that he drives his car. To be a bit more precise, we can state the descriptive strand of Jones' reasoning as follows:

> (1') B (Drunken driving is forbidden).[19]
>
> (2') B (I have been drinking).
>
> Thus, (3') B (It is forbidden that I drive my car).

This reasoning is valid. I think this is clear on an intuitive level. It should be easy to see at this point that we have to give the deontic operator 'it is forbidden that' a descriptive interpretation because the reasoning is, as I have already mentioned in Section 1, *theoretical* reasoning.

(ii) We assume that Jones does not only make a statement when he holds that he should not drive his car. By 'I should not drive my car' he can express his disvaluation of the proposition that he drives the car. His reasoning is valid, if 'Drunken driving is wrong' is also a normative

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[17]Of course, this is not the only possible descriptive meaning. The sentence 'I ought to divide the money equally' can, for instance, also express the belief "If I don't divide the money equally I am acting unjustly" (which John does not want to do). What statement is being made by a deontic sentence, if any, always depends on the context.

[18]There is one further point which I should like to mention in this connexion. The descriptive and the prescriptive aspect of a normative expression need not concur. You can *state* that ϕ-ing is obligatory and at the same time express your *disvaluing* of ϕ-ing. There is no contradiction in stating that I have an obligation to pay property tax and at the same time express my disapproval of having this obligation. It is no news that we can have different attitudes (e. g., beliefs and valuations) towards one and the same proposition, and it is also clear that these attitudes may not concur.

[19]Clearly, if Jones *believes* that drunken driving is forbidden, he can *express* this by saying that it is wrong. The statement 'Drunken driving is wrong' is then true if there exists a norm to the effect that drunken driving is not allowed.

utterance and not only a statement. In short, the purely normative strand of the reasoning is valid if we interpret it as follows:

(1") Des (People do not drive when they have been drinking).

(2") B (I have been drinking).

Thus, (3") Des (I do not drive my car).

This purely normative reasoning is also valid. But the reason for its validity is, as I have already outlined, different. It is valid because the set consisting of the premises and the negated conclusion is inconsistent. If you desire that people do not drive their car when they have been drinking, you believe that you have been drinking, and at the same time you desire to drive your car, you are practically inconsistent (which does not rule out that you are in this motivational state). This set is inconsistent because the content of the negated conclusion-state (i. e., that Jones drives his car) entails (together with the content of the descriptive premise) that his desire that there is no drunken driving is frustrated; while, on the other hand, the content of the conclusion-state (together with the content of the descriptive premise) facilitates the satisfaction of this desire.[20]

To be clear, it is my contention that the argument (1) – (3) is an expression of *both* the descriptive reasoning (1') – (3') and the purely normative reasoning (1") – (3"). That is to say, if Jones believes that drunken driving is forbidden (1') and desires that people do not drive when they have been drinking (1"), then he *can* express these two propositional attitudes by saying 'Drunken driving is wrong' (1). Likewise, if he believes that it is forbidden that he drives his car (3') and desires that he does not drive it (3"), then he *can* express this by saying 'I should not drive my car' (3).

In our example, both the descriptive and the normative reasoning are valid, and the conclusions of both strands of reasoning concur. Jones validly infers that it is forbidden that he drives a car and his reasoning to the desire of not driving the car is also conclusive. But this need not be the case. In hybrid reasoning, the descriptive part can be valid when the purely normative part is invalid (and vice versa); and the conclusions may conflict. To make the nature of hybrid reasoning and its logical assessment clearer, I shall now illustrate this by briefly discussing two examples.

(i) Conflicting conclusions: Suppose you believe that you must give a lecture on Monday mornings, you also believe that it is Monday morning and therefore you believe you must give now a lecture. By symbolizing your reasoning (using 'm' for 'it is Monday morning' and 'l' for 'I give a lecture') we obtain $B(m \rightarrow Ol), Bm \models B(Ol)$. On a descriptive interpretation, the reasoning is valid because its content (i. e., $m \rightarrow Ol, m \models Ol$) is a valid argument.

Suppose, however, that you hate lecturing on Monday mornings.[21] Your valuation $Des\neg(m \rightarrow l)$ and your belief Bm entail $Des(\neg l)$ – i. e., your desire not to give a lecture.[22] (Desiring not to lecture on Monday mornings, at the same time believing that it is Monday morning and desiring to give (now) a lecture is *inconsistent*.)

You have now validly inferred that you have an obligation to give a lecture; and your desire not to lecture is also implied by your premises. To be sure, this does not only show the triviality that you can have a reason for holding that you have an obligation to do something and at the

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[20]As I have already mentioned, I am glossing here over the details of practical validity. But I think our example is so simple that its validity can be intuitively appraised.

[21]The sentence 'I must give a lecture on Monday mornings' can be used to express your devaluation of the proposition that you lecture on Monday morning (e. g., by emphasizing the phrase 'Monday mornings').

[22]Be it noted that *Des* (¬*l*), i. e. your desire not to lecture, can – in an appropriate context – be expressed by saying 'I must give a lecture' (which is the conclusion of your argument).

same time have a reason for disvaluing it. It rather illustrates the interesting fact that by putting forward one argument (in our example, "I must give a lecture because I have to lecture on Monday mornings and it is Monday morning"), you can express two pieces of reasoning that have conflicting conclusions.

(ii) Different logical status: Suppose you believe that you must support your old parents and you think that you can only support them if you visit them regularly. On a descriptive interpretation (where 'I must support my old parents' is a normative statement, stating, say, that you have this legal obligation), these premises do *not* entail that you must visit your parents regularly (where 'I must visit my old parents regularly' is also a statement).[23]

However, if 'I must support my old parents' expresses your desire to support them, and you therefore desire to visit them regularly, your purely normative reasoning *is* valid. (In short, visiting them entails that your desire to support them is satisfied, while not visiting them entails that this desire is frustrated.)

This result shows that one argument (e. g., "I must visit my old parents regularly because I must support them and I can support them only by visiting them regularly") can express two pieces of reasoning. One of them is valid, the other invalid.

3   Conclusion

The result of this investigation may be summarized as follows: Contrary to how it may appear to some philosophers, there is not only one kind of normative reasoning. There are at least three types. One of them, which I have dubbed '*quasi*-normative', is in fact theoretical reasoning. At first sight, it may appear to be practical because a superficial understanding makes it easy to overlook the difference between normative statements and linguistic expressions of valuations. Clearly demarcating *quasi*-normative reasoning from genuinely normative reasoning seems to be particularly important. We are inclined to conflate the two forms of reasoning because in expressing their premises and their conclusion, we can use the same deontic terms, and we tend to ignore that these terms can have a purely descriptive use.

With regard to *genuine* normative reasoning, we have seen that it can be valid. I am aware that I was only able to present a brief sketch of its logical assessment. It should, however, be noted that it is not normative *beliefs* that render this type of reasoning valid but *valuations*. It is not the fact that you believe you ought to ϕ, but the fact that you value ϕ–ing which allows you to draw a practical conclusion. In this type of reasoning, normative beliefs as such are logically redundant.

Of particularly importance seems to me *hybrid* reasoning. Its nature is not well understood and its logical assessment has, as far as I know, never been explored in detail. My exposition, incomplete though it is, should have shed some light on this common form of normative reasoning.

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[23] The argument $Os, s \leftrightarrow v \models Ov$ (where 's' stands for 'I support my old parents' and 'v' for 'I visit my old parents regularly') is *invalid* if we assess it by applying the system that has come to be called the *standard deontic logic*.

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