The distinction between believing a certain proposition and accepting it seems to be a familiar one. For instance an attorney may believe that his client is guilty, but he may not accept it, because his professional duty is to accept that his client is innocent, whatever he believes about his culpability. Or a teacher may not believe what his student says, but nevertheless may accept it, because he does not want threaten the student's confidence in his assertions and his future progress in learning by himself the truth about the matter. In such cases we have a certain cognitive attitude, belief, towards certain matters of fact, but, for one reason or another, we do not want to commit ourselves to this attitude, that is we do not want to express what we really think. In this sense, acceptance is a form of pretense, or of doing as if one believed something, while one does not believe it, and it essentially involves an audience to whom the belief is expressed. But acceptance need not be the expression to others of a certain commitment to a belief. It may be the decision to undertake a certain commitment towards oneself. In the course of a practical or a theoretical deliberation, I may have certain beliefs, and be confident that they are true and reasonable, but nevertheless have reasons not to commit myself to them. For instance I may believe that the train for Edinburgh departs at 10 a.m., but
accept that it departs at 9.45 am, because I know that I have a tendency to be late, and so prefer to assume that it leaves at 9.45 am. In such a case, I foresee what my beliefs will be — I shall believe that there is no reason to hurry— and, conscious of my future limitations, I prefer to adjust my policy.

One reason why we may want to have a distinction between belief and acceptance in these senses, is that we are creatures who, maybe unlike animals and children, do not have only cognitive or motivational attitudes, such as beliefs and desires, but also attitudes about our attitudes, and especially attitudes towards our attitudes. We may approve or disapprove of our beliefs and desires, and commit or not commit ourselves to them. With respect to desires, the form of commitment which is parallel to acceptance is what we call the adoption of certain goals or policies. It is often said that this capacity to make epistemic and practical commitments is a distinctive feature of our being rational beings. We are not simply rational in the sense that we have certain beliefs and desires, and are able to combine them to perform certain actions or inferences, but also because we have a certain reflexive view about our beliefs and desires, of how to manage them. This sort of active involvement, or refusal to incur this involvement, is a sort of second-order feature of our rationality, rationality about our own rational means of achieving certain epistemic or practical goals. Some philosophers claim that it is what is at stake in our being subjects or persons, active and autonomous centers of authority over our passive beliefs and desires, and responsible for these beliefs and desires before ourselves; other philosophers claim that it is what is at stake in our being social animals, who incur commitments not only to ourselves, but to others, in a larger social setting.

Such claims and issues constitute the larger philosophical background of the discussion of the concepts of belief and acceptance, and I have just sketched some of the most general motivations for drawing such a distinction. But one may also question the distinction. There are two ways of doing this. On the one
hand, one may accept the distinction at the conceptual level of ordinary speech and thought, but in refusing it at the philosophical or theoretical level. One can hold a form of error-theory: there is indeed, on the face of it, a distinction between our passive and our active powers, but the distinction is illusory, because the so-called active side of our nature is in fact undermined by the passive side. On this view, we are believers and desirers, and our beliefs and desires are passive: we only have the illusion of being able to manage our beliefs and desires, of being autonomous and free subjects. I shall not deal with this grand issue, and shall simply assume, with the error-theorist, that there is at least a prima facie distinction between two sorts of attitudes, the one passive, such as beliefs and desires, the other active, such as acceptances and goal-seeking attitudes. But then one may criticize the distinction at this conceptual level, and refuse to say that there is a distinctive attitude called "acceptance", which would differ from belief. On this view, acceptance just is a special kind of belief a form of belief about our beliefs. Belief itself seems also to carry some form of commitment. This is what is usually taken to be one of the lessons of Moore's paradox: "I believe that $p$, but not $p$", or "I do not believe that $p$, but $p$". The reason why these sentences are odd, it is claimed, is that the speaker incurs some form of commitment when he says, in the first-person mode, "I believe that $p$". He also incurs a sort of commitment to a belief when he asserts that not $p$. So he is both committing himself to the content of an assertion, and denying that he commits himself to it. Hence the inconsistency between the two commitments. So belief itself, or rather the expression of belief, seems to carry a commitment. One may want, if one wishes, call this commitment "acceptance", but we more ordinarily term it "belief". In this respect, there is nothing special about acceptance. The attorney, the teacher, and the traveler all say something of the form: "$p$, but I do not accept that $p$", or "I believe that $p$, but I do not accept that $p$". But isn't there also something odd, as there is something odd in the Moorean assertion, when one says: "It rains, but I
do not accept that it rains”? So why not say that acceptance just is a form of belief, and proceed to study the ways in which our beliefs are rational or not?

In what follows, however, I shall try to show that there is a theoretical need for a distinction between and acceptance, and that the distinction is an important one. But I shall also grant that, to a certain extent, the objection just voiced that acceptance is not so unrelated to belief, and might well be a species of belief. The authors who have wanted to draw the distinction seem to assume that belief is neither a necessary nor a sufficient condition for acceptance (Cohen 1992, Bratman 1993). Against them, I shall try to argue that, although belief is not a sufficient condition for acceptance, it is, nevertheless a necessary one, and that, in most cases, acceptance entails belief, or presupposes it.

As I have just suggested, the issues which are involved when one attempts to analyse the relationship between the two sorts of attitudes, are large, and somewhat messy. There are various strands in these debates. The first one, of course is the problem of the nature of belief, which is a long standing one in the philosophy of mind. Second there is problem of the relationship between belief and its expression in language and in action. A third strand is the relationship between belief as a an attitude which allows for degrees, as it is claimed by Bayesians, and belief as an "all or nothing" attitude. A fourth strand concerns the role of acceptance in practical reasoning. And a fifth strand concerns the role of acceptance in theoretical reasoning, in particular in scientific reasoning. Some instrumentalist philosophers advocate the distinction, because they want to distinguish our accepting a theory and our believing it to be true. All these issues can arise in connexion with Moore's paradox, which I mentionned above. I do not intend, however, to trace here all the connexions between these various strands. In addition, as one may have guessed from the exemples given above, there are also several notions of acceptance, which only parly overlap. A first one is acceptance as a form of assent to a proposition or to a sentence. A second one is acceptance as the
adoption of a form of policy in practical or theoretical reasoning. And the third one is acceptance as a general attitude of commitment towards one's beliefs. These are different grades, or degrees of acceptance. I shall deal with each of them in turn, and try to show that although they are distinct from belief, they depend upon belief.

I

On a certain view of acceptance, acceptance of a proposition is simply the act of assenting to a certain sentence, or of holding it true. This seems to be, for instance, Davidson's position. He says, in the course of presenting his theory of interpretation:

"A good place to begin with is the attitude of holding a sentence as true, or of accepting it as true [my emphasis]. This is, of course, a belief, but it is a single attitude applicable to all sentences, and it does not ask us to make finely discriminated attitudes among beliefs." (Davidson 1984:135, see also 161)

On this view, acceptance that \( p \) is the belief that the sentences ‘\( p \)’ is true. This seems to imply that a) acceptance is a belief, and b) that it is the expression of a belief in the speech act of the assertion of a sentence, and therefore that c) acceptance cannot be an inner mental act of assenting to a proposition, but only the public act of expressing it in words. But in fact neither of these connexions hold. Acceptance, in the sense of holding a sentence true is indeed a form of belief, but it is a special one, a belief in the truth of a sentence. It is not, however, identical with a belief in the ordinary sense of belief in the truth of a certain proposition, with a certain content. In order to see the difference between believing that \( p \) and holding true ‘\( p \)’, let us consider the following example.

You leaf across the pages of a book on taoism, written by a renowned expert. You know nothing about the tao, Chinese philosophy, not even about Chinese. You read:
"Zuangzi's principle is that you cannot get a shi without having a cheng"

You do not know who this Zuangzi is, not even whether it is the name of a person, and you do not know what a shi or a cheng is. Nevertheless, on the basis of the author's authority, you believe that the sentence is true. But since you do not understand the sentence, you do not believe what it says. This seems to be paradoxical, because it leads to a version of Moore's paradox. You have:

(1) "Zuangzi's principle is that you cannot get a shi without having a cheng" is true but I do not believe that Zuangzi's principle is that you cannot get a shi without having a cheng

But by the famous Tarskian equivalence you have:

(2) "Zuangzi's principle is that you cannot get a shi without having a cheng" is true iff
Zuangzi's principle is that you cannot get a shi without having a cheng

which, by substitution, leads to Moore's paradox:

(3) Zuangzi's principle is that you cannot get a shi without having a cheng but I do not believe that Zuangzi's principle is that you cannot get a shi without having a cheng

But, on reflection, there is no Moorean paradox here. For there are two distinct kinds of attitudes here. One is the attitude of believing that \( p \), in the sense of believing the content of the proposition expressed by the sentence ‘\( p \)’. The other one is the attitude of holding the sentence true. And it is certainly possible to have the latter without having the former (i.e (1) is true), although in general holding true a sentence is the sign that one believes its content.

The same holds for the relationship between holding true and asserting. In general the assertion of a sentence implies that the content of the sentence is believed to be true. When one does "assert" that \( p \) without believing that \( p \), one is not doing an assertion, but seeming to do one, or pretending to do one. Therefore, holding true or accepting, in this sense, is neither identical to believing nor identical with asserting. Belief, therefore, is neither a necessary, nor a sufficient condition for holding true. Nevertheless if one holds true ‘\( p \)’, there is at least a belief that one has: the belief that ‘\( p \)’ is true. A case of

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1 see Ulman and Margalit 1992: 167
holding ‘p’, in the absence of the belief that it is true, would not be a case of holding true ‘p’: it would be, like in the case of a false assertion, a form of pretense, or a failure. If one wants, holding true is a form of minimal believing. The point of using this attitude in the theory of interpretation as Davidson conceives it, is that it is, in his words, "non individuative" of the contents of the beliefs of a speaker and of the meanings his attaches to his words. As he says:

"We can know that a speaker holds a sentence to be true without knowing what he means by it, or what belief it expresses for him. But if we know that he holds the sentence true and we know how to interpret it, then we can make a correct attribution of belief."(Davidson 1984:162)

Holding true is, for Davidson, a means to start the process of interpretation. Holding true a sentence may well be called also a form of minimal assent or a form of minimal acceptance. Belief in what the sentence means or expresses is not a necessary condition of it. But it seems to be a sufficient one: if I believe that p then I hold true that p. I shall not dwell here on the question whether belief is a form of relation to a sentence or to a special kind of object, such as a proposition, a fact or a state of affairs. But the expression of belief seems to be tied to some form of assent. This is, of course, one of the reasons of the oddness of the Moorean sentences: "I believe that p, but not p.". In general the oddness is explained in terms of the notion of assertion, as a public speech act: at least on one interpretation of the paradox, the person is both asserting that she believes that p with the first sentence, and asserting that she does not believe that p. But, as Jane Heal remarks:

"This stress on assertion overlooks the fact that there is something equally strange about the idea that someone realises the sentences to be true of him or herself, i.e makes the sort of judgment which they express, whether overtly communicated to another or not."(Heal 1994: 6)

So assent, holding true or accepting, need not be tied to the act of assertion, and may well be some form of agreement in thought, although Davidson tends to mean by "holding true" the public expression of this agreement in a linguistic utterance. What I want to emphasise here is that acceptance as assent to a
proposition-like item or to a content is not dependent upon a belief in the content, but only upon the belief that the sentence or the thought-content is true. In this respect one may assent to a thought, or hold it true in foro interno without understanding it. For in instance I may hold true mentally "E = MC²" but not believe what the thought expresses. In this sense assent or acceptance is more that mere parroting — presumably a parrot does not believe that the sentences it repeats are true, and thus does not hold them true nor accepts them — but acceptance is less than believing in the full sense of understanding what one believes or what one says. In this sense, it is also less than saying that \( p \), or asserting that \( p \), which both imply some form of commitment not only to the truth of \( p \), but also to what truth \( p \) expresses.

II

Having identified a minimal form of acceptance— holding true—which we may call acceptance₁, I want now to examine a different notion of acceptance, which one may call contextual or pragmatic acceptance, which I shall call acceptance₂. This form of acceptance, unlike holding true, presupposes that one understands the content of what one accepts. The reason why is is contextual or pragmatic is that it is considered as a step in the course of a practical or theoretical deliberation. In this sense it is sometimes contrasted with full acceptance, as the end of the process of reasoning. For instance Gilbert Harman says:

"Suppose Mark is trying to get to an address on a street called "Prospect Place" Mark's "investigation" consists in asking a passerby if he knows how to get there. If the passerby is sufficiently hesitant, Mark may check the direction by asking others (Mark may even think it prudent to ask a second person even if the first may seem quite confident). But once Mark comes fully to accept an answer, Mark's "investigation" is over. Mark will not at that point continue to ask others how to get to prospect place." (Harman 1986:48)

The process need not imply a series of questions posed to others and of answers from them. It may be a solitary one, involving steps that one takes in thought.
Now of the point emphasised by the writers who analyse acceptance in this sense, is that the steps may be, unlike full acceptance, only tentative, and relative to the situation at hand. In this respect, they claim, acceptance is unlike belief, and does not depend upon it.

To understand their point, however, one needs first to say a little more what belief is. For that, it is not necessary to commit oneself with a particular conception of belief, as a disposition to behave, or as functional role, or what have you. It is enough to recognise that belief has the following six general features (Bratman 1993):

(1) Beliefs are not voluntary, and not normally subject to direct voluntary control. I cannot believe at will that my trousers are on fire, or that the Dalai Lama is a living God, even if you pay me a large amount of money for believing that, for the reasons given by Bernard Williams in his classic paper "Deciding to believe"(Williams 1971).

(2) Belief aim at truth: when one's belief is not shaped a concern for its truth, but by what wants to be the case, the subject is more or less a wishful thinker of a self deceiver.

(3) Relatedly, beliefs are shaped by evidence for what is believed, and the degree to which a belief is reasonable is proportional to the degree of evidence that one has for its truth. This is why, prima facie, it is not reasonable to believe against the evidence that one has. This is also why cases of willful beliefs are not in general cases of belief at will, but cases of manipulation of the evidence that leads to having a belief (for instance by the use of drugs, or through hypnosis).

(4) An agent's belief are subject to an ideal of agglomeration and integration. Other things being equal, we should try to make our beliefs coherent and consistent, and to fit them together in some larger view. It is in this sense that our beliefs aim at being rational, and have, as one says, a "normative character".
Belief is context independent; at a given time, a subject believes something or does not believe it, but he does not believe it relative to a context. Of course the content of a belief may be quite contextual, for instance when it contains an indexical. But the having of a belief is not itself contextual. It would be absurd, or a case of conceit, to say that on Wednesdays I believe that Hong Kong is noisy, but that on Sundays I don't believe this. I can certain have both beliefs if they answer to different pieces of evidence (for instance if there are a lot of cars on Wednesdays in Hong Kong, but fewer on Sundays), and thus I can change my first belief into the second one. But it would be strange to say that my belief is contextualised with respect to different days of the week. Either I have it (even for a very short time) or I don't.

This later fact does not imply that our beliefs are not a matter of degree. I believe that $p$ or I don't believe that $p$ to a certain degree, relative to the evidence that I have.

We may, or we may not, understand this latter point in a Bayesian sense, and assign precise numerical degrees of subjective probabilities to our beliefs. If we do accept the Bayesian framework, then we can understand why belief is for them distinct from acceptance in our first sense (acceptance). For instance the Bayesian Patrick Maher writes:

"The term belief is traditionally used to refer to propositions that a person accepts or holds as true. Belief in this sense is closely associated with assent, and like assent it is a qualitative concept: a person either believes that $p$ or does not believe that $p$. "(Maher 1986:363)

Here Maher calls "belief" what I have called acceptance as assent to a proposition. But the point advanced by those who call themselves radical Bayesians (Jeffrey 1972), is that belief itself, as a qualitative concept, or, as Ramsey (1926) would have said, "full belief" (belief of degree 0 and 1) should be replaced by belief as a quantitative concept, or "partial belief" (belief between degree 0 and 1). According to the radical Bayesian, to determine whether an action is rational, you need only ascribe to the agent partial beliefs
and partial desires: the person need not believe, in the sense of assent or acceptance, a given proposition, in order to act upon it. Whether we accept it or not (and I shall later come back to this), the Bayesian framework helps us to contrast belief, in the sense of an attitude having the 6 five features that I have given, from acceptance as assent.

Now a number of writers (in particular Stalnaker 1984, Van Fraassen 1989, Lehrer 1990, Cohen 1992, Ullman and Margalit 1992, Cohen 1992, and Bratman 1993) have argued that we must distinguish belief, understood more or less as the attitude which has the 6 features just listed, from acceptance.

For instance Cohen gives the following definition of acceptance:

"To accept that $p$ is to have, or to adopt a policy of deeming, positing, or postulating that $p$ — i.e. of including that proposition or rule among one's premises for deciding what to do or think in a particular context, whether or not one feels it true that $p$. "(Cohen 1992: 4)

As these last words indicate, Cohen takes belief to be "a feeling that $p$ is true. I do not know what this means exactly. He says that belief is not a disposition to act, but a mental state of feeling, which is presumably conscious and fully accessible to the subject, unlike dispositions. But we do not need to agree with Cohen on this, nor to enter into the question whether belief is a conscious state of mind or not, to draw the distinction belief and acceptance.

The main point is that acceptance differs from belief in that one can accept, or posit, or suppose that $p$ irrespective of what one believes on the matter. The reasons for accepting $p$ may be prudential, rather than evidential, and they are often tied to a context of practical deliberation. To take again the example of the attorney given above, the attorney can accept, for the purposes of pleading before a jury, that his client is innocent, although he believes that his client is guilty. In this case, one accepts that $p$, although one believes that not $p$.

Acceptance in this sense (acceptance) is quite close to what Kant calls **pragmatic belief**
The attorney case
Cohen describes the attorney case as a case of acceptance without belief. But this is a quite different case from that of the prospective builder. The prospective builder accepts a certain proposition, and has an epistemic attitude of acceptance towards it. But the attorney need not have an attitude of acceptance in this sense. He need not accept the proposition that his client is innocent, for it is his professional duty to take it for granted that the client is innocent. He just follows a rule, and following a rule does not involve acceptance of a particular proposition. So it is misleading, on Cohen's part, to suggest that the attorney "accepts" that his client is innocent. We may say that the attorney pretends to believe that his client is innocent, or acts as if he were innocent. But pretending to believe is not accepting, in the sense of pragmatic acceptance. It is rather a form of action. So the attorney case is not really a case of acceptance without belief. The matter would of course be quite different if the attorney had to inquire into the case, or to try to discover whether his client is guilty or not. He may then accept it or not. But then we come back to the previous kind of case, the case where belief is a necessary condition for acceptance.
The last form of acceptance that I wish to examine is what we may call acceptance as full commitment to one's beliefs. Let us call it acceptance3. Unlike pragmatic acceptance, it is not contextual or tentative acceptance. It is rather a general requirement of coherence imposed on our beliefs. But we have seen that the concept of belief incorporates a requirement of integration or agglomeration. So why should we here distinguish a special sort of attitude distinct from belief? One reason is that in this form of acceptance, like acceptance2, is alleged to be voluntary. According to Van Fraassen (1984, 1995) one must add to the usual Bayesian requirements on the rationality of our beliefs a requirement about their diachronic rationality, that is about not only our present beliefs but also our future ones. The upshot of this requirement, according to him, is that, contrary to what the traditional Cliffordian maxim says ("It is wrong, always, and all the time, to believe anything upon insufficient evidence") and in agreement with some of James's claims in The Will to Believe, "belief is a matter of the will."

Van Fraassen offers two sorts of consideration in favor of this "voluntaristic" thesis. First he uses Moore's paradox to point out that the Moorean statement is paradoxical because the person who utters it both commits herself to the truth of P by the first assertion and withdraws this commitment by the second assertion. This is because, according to Van Fraassen, statements of the form "I believe that P" ascribe a certain property to a person, that is a commitment to the truth of P, and not a certain relation between an individual and a proposition. Van Fraassen takes up a view put forward by Lewis (1979) according to which such statements are cases of self-attribution of properties. The property self attributed is the property of being a person such that one believes that P. Romantically, this could be expressed in this way: "I am, and I want to be, the sort of person who believes that P."
Understood in this way, belief-predicates are not really descriptive predicates, predicates which describe states of an individuals or which state a matter of fact, but are in a sense normative predicates, which assert that a person sets herself to believe that P. In that sense, according to Van Fraassen, belief is, to an extent (which has yet to be determined) a matter of the will, and not a matter of registering or describing one's cognitive attitude towards a proposition.

Second, Van Fraassen argues for voluntarism about belief through the framework of Bayesianism. Typically the Bayesian view can be called past-oriented: our new, a posteriori beliefs are dependent upon our past beliefs. Van Fraassen, on the contrary, wants to concentrate upon our future beliefs, and on how they can affect our current ones. If I discover that, within one year's time, I will believe that A, how should this affect my current attitude towards A? In subjective probabilistic terms, if I have now a degree of confidence $x$ in A, and then come to know that I shall have a degree of confidence $y$ in A, where $y \succ x$, how should this affect my current degree of confidence? Van Fraassen answers that in general my degree of confidence $x$ in A now, if I come to know that I will have a degree of confidence $y$ in A in the future, should be equal to $y$, or lie within a range which is close to $y$, therefore that $x$ should differ largely from $y$. If, I know that I will believe that A in, say, a year's time, to a degree between 0.7 and 0.9., then my present degree of belief in A should, optimally, be located between 0.7 and 0.9, or equal to the future assignation of degree. This is what he calls the Principle of Reflection, which he states thus:

To satisfy this principle, the agent's present subjective probability for proposition A, on the supposition that his subjective probability for this proposition will equal $y$ at some later time, must equal this same number $y$. :

$$PR= P_0( A / P_1(A) = y ) = y$$

To illustrate this principle, suppose for instance that a weather forecaster announces today (Tuesday) that there is a 50% chance that it will rain on Friday, but also announces that he will, on Friday morning, predict that there is no more
than a 25 % chance that it will rain that day. There is surely something odd with this weather forecaster, and the audience will be baffled. It will be baffled, presumably just as much as would be baffled if the weather forecaster has said: "It will rain, but I believe that I will not rain". Well, maybe not quite, for we have allowed here that it is not a matter of "full belief", as Ramsey would say (belief with degree 1 or 0) in the occurrence of rain, but a matter of partial belief, and we know that such matters about our degree of confidence in the occurrence of weather conditions are rather vague. But even if we allow there that degrees of belief in the happening of rain are vague and likely to change, there is still an oddity in the weather forecaster's prediction, for it is, after all his job to assign precise quantities to his prediction.

Van Fraassen gives in "Belief and the will" an argument for showing that there will definitely be something wrong with such a weather forecaster. The argument uses the usual Bayesian strategy of making "Dutch books" to show that, we an agent is incoherent with his subjective probability attributions, a book may be made against him, which will have the result that he will lose money on a series of bets which a clever booker might make against him. Usual Dutch Book arguments, however, are typically synchronic: they consider only the agent present and past beliefs (and degrees thereof) and their coherence. Van Fraassen's Dutch Book argument is diachronic, and considers not only the present and past beliefs but his future beliefs.

For the bizarre weather forecaster we have the following probability assignment (Christensen 1991):

(1) $P_0(A / P_1(A) = 0.50) = 0.25$

where "A" is the proposition that it will rain on Friday, $P_1(A)$ the probability that it will rain on Friday as estimated today (Tuesday) by the agent, and $P_0(A / P_1(A) = 0.50) = 0.25$ the agent's probability that it will rain on Friday given the agent's present estimation of the probability that it will rain on Friday. We must also assume that the agent assigns some non zero probability to the
proposition that on Friday morning he will think at a degree of 50% that is likely
to rain (if she did not, the conditional probability in (1) would be undefined). Let
us suppose it is 20%:

\[(2) \quad P_0 (P_1 (A) = 0.50) = 0.20\]

The Dutch bookie offers the agent tow bets. The first bet will be won by the
agent if tomorrow he believes, at degree 0.50, that it will rain. By (2), the agent
believes that his chances to win the bet are 20%; so he puts 2 £ when the bookie
offers 8 £, say. The second bet is more complicated. It is conditional on the agent
winning the first bet (i.e conditional on his believing at degree 0.50 that it will
rain of Friday). If this condition is not met, then neither the agent nor the bookie
win anything. If it is met, then the agent wins the bet if is does not rain on
Friday, and the bookie wins if it does rain. Thus his probability that he win the
bet is 75%. So he considers it fair to put 30 £ when the bookie offers 10 £.

Now the bookie waints until Friday morning, when it is discovered
whether the agent does believe at degree 0.50 that it will rain. If he does not so
believe, then the second bet is null, and nobody wins. The bookie has, however,
own the first bet, i.e he got 2 £ from the agent. If the agent does believe, at
degree 0.50, on Friday morning that it will rain in the Friday afternoon, then the
agent has won the first bet, i.e 8 £. And the second bet will not be null, but won
or lost depending on whther it will rain or not in the afternoon. At this point the
bookie offers the agent a third bet, which will be won by the agent if it rains in
the afternoon, and by the bookie if it does not. Given that the agent assigns a
probability of 50% to rain in the afternoon, he is will to pu 20 £ to the bookie's
20 £.

The bookie can now be confident that he will win money anyway at the
agent's expense. Suppose it rains. Then he has won the second bet, and he will
win 30 £. The agent wins 20 £ on the second bet, and he has won 2 £ on the first.
So the bookie earns 2 £. On the other hand, suppose it does not rain. Then the
bookie has lost the second bet, lissing the 10 £ he put there, together with the 8 £
he lost on the first bet. But he still wins the third bet, i.e 20£. So he ends up with 2£ profit here too. So the agent looses 2£ no matter what he believes on Friday morning and no matter whether it rains or not on the Friday afternoon. He is incoherent in such a diachronic book, just as an agent is incoherent in a synchronic book. Van Fraassen claims that such situations validate the Principle of Reflection. He says:

"My integrity, qua judging agent, requires that, if I am presently asked to express my opinion about whether A will come true, on the supposition that I will thin it likely tomorrow morning, I must stand my own cognitive engagement as much as I must stand by my own expressions of commitment of any sort. I can rationally and objectively discuss the possibility of discrepancy between my objective chances and my previsions. But I can no mor say that I regard A as unlikely on the supposition that tomorrow morning I shall promise to bring it about that A. To do so would mean that I am no less than fully committed (a) to giving due regard to the felicity conditions of this act, or (b) to standing by the the commitments I shall overtly enter." (1984: 255)

In this respect, believing — or rather the expression of one's belief — is like promising. If I express a promise which I also withdraw in the same breath, then I do not really promise.

The principle of reflection has some appeal. The case of the weather forecaster is obviously problematic, and the idea that we should stand behind our commitments is also quite plausible. But there are at least two prima facie problematic features with Van Fraassen's argument.

The first one is is reliance on Dutch book arguments and the Bayesian subjective probability framework. One difficulty with this framework is that we do not all the time assign precise degrees to our beliefs. A number of epistemologists in fact just deny that we reason or act out of partial beliefs, and claim that belief revision is made from full beliefs. In that respect one might say that we might not want to put odds on a certain proposition in accordance with our degrees of belief. So, if Van Fraassen wants to argue that belief implies a sort of commitment, why doesn't he argue for this point only through relying on Moore's paradox, which does not involve any subjective probabilities attached to
our beliefs? And there is the familiar Pascalian point that even if we grant that the fear of betting losses gives us reasons not to have incoherent degrees of beliefs, the reasons that we have might not be epistemic. The reasons can be practical or utilitarian in the wide sense. According to Pascal's famous wager argument, the reason why one has to believe in God are not primarily epistemic reasons. They are reasons which have to do with the eternal bliss that we may gain from believing in God, the "infinity of gain", as Pascal says, which outweighs every evidential reason that we may have or not have for believing in His existence. In that respect, Van Fraassen's reliance on Dutch Book arguments is somewhat infortunate if we consider that he wants to defend a view like James' in *The Will to Believe*, for James precisely makes appeal to Pascal's wager to claim that we value truth not for epistemic reasons only, but also because truth is connected with utility.

Van Fraassen, however, is well aware of these difficulties. This why he does not rely too much, in a later paper (1995), on Dutch book arguments, and claims that they are rather of "heuristic value"(1995: 9). He rather appeals to Moore's paradox. The main problem with the weather forecaster in this respect, is not that he *contradicts* himself by believing that there is a 50% chance of rain while at the same time he believes that he will believe at degree that there is a 25% chance of rain. There is no *logical* inconsistency here. The problem is rather that by expressing his belief in this way, he undermines his credibility as an expert, just as I undermine my credibility when someone asks me: "Where is the philosophy department?" if I answer: "It's on the third floor, but I don't believe it's on the third floor." A more obvious way of pointing out that something has gone wrong with the weather forecaster is to compare the subjective probabilities with the objective ones. Subjectivists or personalists about probability do not claim that subjective probabilities can be assigned completely without taking into account the objective probabilities or frequencies of an event. It's not as if you could have any subjective probabilities you want,
without caring about actual frequencies. Even subjectivists say that subjective probabilities should be calibrated with objective ones. In this respect, the weather forecaster's subjective probabilities go wrong because they cannot be so calibrated. Suppose we take a sample of 100 days with data identical with those that the forecaster has on Tuesday. Then the forecaster's Tuesday's prediction will be calibrated with the actual frequencies if it rains on half of those days, but the Friday morning prediction will be calibrated with the frequencies only if it rain only a quarter of those days. And it impossible for both predictions to be calibrated with the actual frequencies of the sample (Van Fraassen 1984: 245-246).

So the main problem is not so much the kind of incoherence that comes from Dutch books being made against the agent, and which show him irrational; the main problem is that the agent is not diachronically coherent, that is coherence between present belief and future belief. This why Van Fraassen proposes in his 1995 paper not the Principle of Reflection above, but what he calls the General Reflection Principle, which runs like this:

GPR: My current opinion about event E must lie in the range spanned by the possible opinions I may come to have about E at later time E, as far as my present opinion is concerned.

And he says that this principle applies to someone who may only have vague degrees of belief about E. This why I remarked above that the weather forcaster case is odd, even if we agree that probability assignments to our beliefs are vague. Even if he says, on Tuesday, "There is a chance of rain Friday", and on Friday morning "It is less likely that I will believe that it will rain on Friday", he would still be guilty of diachronic incoherence.(Van Fraassen 1995: 15).

Let us suppose, for the moment, that the weakened principle of reflection GPR calms down the worries that we may have about PR. It would still not answer the following worry (Christensen 1991). There seems to be cases where
the Principle of Reflection is violated and should be violated. Suppose that I take a certain drug which I know to have the following effect: it will, in a short while, make me confident that I can fly. But certainly it is not rational for me now to believe that I can fly. Or suppose that you are sure that you cannot drive safely after, say, ten drinks. Suppose also that after ten drinks, you would be sure (wrongly, as you now think) that you can drive safely. Reflection requires you to be sure that you would not be wrong if in the future you became sure that you can drive safely after ten drinks. But clearly the police would not advise to follow the Principle of Reflection here. These cases are similar to the well known story of Ulysses and the sirens. Ulysses knows that hearing the Sirens sing will cause he and his sailors to pass overboard their ship into a dangerous sea. So he ties himself to the mast and puts wax in his ears, to protect himself and his crew from the temptation. Ulysses's case is a case of prudential step to avoid danger, and it has to do with practical rationality. It is sometimes a matter of prudence not to trust one's future beliefs. The voluntaristic advice about belief is a counterpart of this practical problem, but it gives us the opposite verdict. It says that we should not trust our present opinion when we know that it may be at odds with our future opinion. But the cases just described are cases where one should trust our present opinion, and not our future ones.

Perhaps one should try to restrict the scope of Reflection, and say that it applies only to the beliefs which are under my control. The counterexamples involve cases where there is a causal link between a certain state of my body and my future beliefs, which are not under my control. So we could try to rule out such cases of uncontroled beliefs. Unfortunately the dividing line between what is under my control or not is not sharp.

The countexamples to the Principle of Reflection are all cases where we know for sure that our future beliefs will be such or such, because there is some causal circumstance which more or less nomologically constraints these future beliefs, and which are such that our future beliefs will conflict with our present
ones. But in general the boundary line between my present reliance in my belief abilities and my future reliance in my belief abilities is not precise. For instance, I know that, at the present moment, I can trust my memory; but I am not so sure that I shall be able to do so in the future. So if I can trust my future opinion about some event in the past, I shall be able to make this future opinion cohere with my present one about the same event. But if I do not trust my future opinion because I have reasons to think that I shall be unreliable, it is likely that there will be a conflict between my future opinion and my present one. So everything depends upon whether now I have reasons to believe that I shall believe this or that in the future. I shall usually have some background information about my future reliability with respect to a given belief P. But if I don't, and in particular if the only reason I have to believe that P is one that is derived from a general attitude of trust towards my future opinions, then my future belief P give me only a weak reason to believe P now. And the reason is easily defeated when it conflicts with my current belief, as is shown by the counterexamples to the Principle of Reflection. (Foley 1994)

This means that both my current belief about P, and my current beliefs about whether I shall believe P in the future, have a sort of precedence over my future opinions, contrary to what voluntarism implies. Everything depends upon whether it is rational for me now to believe that P. It does not matter how you construe rationality or reasonableness of belief here. You can understand it in the "externalist" way, as a form of reliability in your present belief and belief forming capacities. Or you can understand it in the "internalist" way, as the presence of evidence available to you to confirm your beliefs. Whatever "rational" means here, rationality is tied to our present beliefs. It is only derivatively tied to coherence between past and future opinions. Once the agent is rational, it is incumbent upon him to make his present opinions cohere with future ones, but this coherence is not by itself a sign of rationality. In that respect the Principle of reflection is a maxim of rationality which is largely irrelevant to
the formation of rational belief. To see this take the following case. I do not believe in God, for reasons which I take to be good: there is insufficient evidence for His existence. But I may be sure, or strongly confident, or just believe to a reasonable degree that at the time when I shall be approaching death, I shall believe in God for I know, or think I know, that it is common for people who are aware that they will be facing death in a not distant future to have religious feelings. Should I follow Reflection or not? On the one hand, one may argue that it irrational for me now to believe in God on the basis of the fact that I must assign the same degree to a belief in God now as the degree of the same belief in the future. So I should not follow Reflection. On the other hand, it may be argued, along the voluntarist line, that it is quite rational for me to believe in God now, since it will cohere with my future belief. And I may be today closer to death than I think, so that my future belief does not lie in such a distant future. Of course the problem here is that it is not rational at all in the first place to believe in God because one fears that one is approaching death. Fear is not a proper ground for rational belief. But then it shows that the rationality or the irrationality of my beliefs have nothing to do with a diachronic coherence between my present and my future beliefs. It has to do with whether my beliefs, present, future, or past, are appropriately based on evidence. And if I think that they will not be based on further evidence when I shall be approaching death, then I should not trust my future beliefs, even when I know what they will be. But of course if my future beliefs can be based on appropriate evidence — if it were true, for instance, that when one faces death, one has more evidence available about the existence of God, say if it were the case that God sent to us more signs of his existence when we are closer to death than he does earlier—, then we should try to make our future (rational) beliefs cohere with our present beliefs, if the latter conflict with the former. So Reflection is supervenient upon the rationality of our beliefs, which is in general the rationality of our present belief, rather than the other way round.
If the example about my belief in God seems too moot, let us come back to the weather forecaster who believes that there are 50% chances of rain on Friday, but believes that on Friday morning he will believe that there are only 25% chances of rain. What goes wrong with the forecaster is that it is irrational for him to believe that he will have a different opinion on Friday, since that would show that he has not taken into account evidence for his Tuesday belief. It's not that he is irrational in not being coherent with what he will believe. the problem is rather that if he has reasons to believe that he will believe differently on Friday, then his present belief, that of Tuesday, must have relied on insufficient evidence. The incoherence between the future and the present belief is only due to the insufficiency of his evidence today.

So, after all Clifford was right: it is wrong, always, to base one's beliefs upon insufficient evidence. But James was right too in the following respect: once we have sufficient evidence for our future beliefs, and sufficient evidence that we shall have these beliefs, then we should try to adjust our present beliefs to our future ones. If this is what Van Fraassen mean by Reflection, it is a sound, and necessary, maxim of rationality. But it is hardly a sufficient one.

I have identified here three senses of the notion of acceptance: acceptance as holding true, pragmatic or contextual acceptance, and acceptance as commitment. There are good reasons to distinguish these attitudes for belief, and thus to do them by a different name, acceptance. But in all these senses, contrary to what the authors who advocate the distinction between acceptance and belief, we have found that acceptance is dependent upon belief.
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