



**HAL**  
open science

## Is truth the aim of belief?

Pascal Engel

► **To cite this version:**

Pascal Engel. Is truth the aim of belief?. Donald Gillies. Laws and models in science, to appear King's College London publicationd, 2003, ESF. ijn\_00000444

**HAL Id: ijn\_00000444**

**[https://hal.science/ijn\\_00000444](https://hal.science/ijn_00000444)**

Submitted on 12 Feb 2004

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

## TRUTH AND THE AIM OF BELIEF

Pascal Engel  
 Université de Paris-IV Sorbonne, Institut Jean Nicod  
 Pascal.Engel@paris4.sorbonne.fr

### *0. Introduction*

It is often said that “belief aims at truth”. This is presented sometimes as a truism, sometimes as capturing an essential and constitutive feature of belief and of inquiry. It is a truism that to believe something is to believe that it is true, and that in this sense beliefs are directed towards truth. It is also a truism that we aim at having true beliefs rather than false ones, and that in this sense truth is our goal when we form beliefs. But it is false if it is supposed to apply literally to beliefs rather than to believers: obviously beliefs do not “aim” at anything by themselves, they do not contain little archers trying to hit the target of truth with their arrows. In this sense the claim must be metaphorical. It is more appropriate, if there is an aim at all, to ascribe it to persons and not to beliefs. But in this sense too it is false: sometimes we do not aim at having true beliefs, but at having pleasurable or comforting ones. Or perhaps what the claim says is that we *should* aim at having true beliefs. So what does it mean to say that beliefs aim at truth? And is it true?

There are at least three reasons to be interested in clarifying what, to use a generic term, the truth-directedness of belief<sup>1</sup> means. The first is that it promises to tell us what belief is, as a mental state, and what distinguishes it from other kinds of mental states. In particular it is held that truth-directedness is the feature which differentiates belief as a cognitive mental state from motivational states, such as desires and wants. Indeed it is also said to be what prevents belief from being subject to the control of the will.

The second reason is that the truth-directedness of belief seems to have something to do with another feature of belief, its “normative” character. Beliefs are correct or incorrect, rational or irrational, justified or unjustified. And the fact that beliefs aim at truth, in the sense that truth is the

---

<sup>1</sup> I borrow this phrase from Velleman 2000. Other writers, for instance Walker (2001), talk about “truth aimedness”

fundamental dimension of assessment of beliefs seems to be related to this normative dimension. So this normative sense should shed light on the nature of our epistemic norms and principles.

The third reason has to do with the nature of truth as a goal or as the main theoretical value. This too is often presented as a truism: truth is the ultimate epistemic aim of scientific inquiry. But is it really a truism? Some pragmatists and most postmodernists disagree, but also some instrumentalist philosophers of science, who say that the goal of scientific inquiry is not truth but empirical adequacy. So it promises to illuminate some of the fundamental issues about scientific realism and about the value of knowledge in general.

It would be completely unrealistic to hope to deal with all these issues within the space of a single paper. I set myself a more modest objective, which is to try to investigate the relationships between these various dimensions of truth-directedness. There is actually a tempting picture of these relationships, which promises to unify these various dimensions. If truth is the ultimate goal or norm of scientific inquiry, that at which our beliefs are directed, then it is plausible to claim that belief is the kind of attitude through which we try to reach this goal. Hence to believe something is not simply to entertain a proposition which happens to be true or false, but it is having a relation to this proposition with the aim that it is true and of avoiding error. The connection seems to be this: if a form of directedness or of direction towards a goal – i.e something purposive – is essential to the nature of belief, we might hope that this very feature is what accounts for the fact – if it is a fact – that truth is essentially a norm and a value. And one might hope to understand this connection by discovering in what sense belief is an essentially purposive activity, which involves, on the part of the believer, a certain kind of intention, hence of action. Truth, in this sense, would not be simply a cognitive or epistemic norm, but a practical one, a goal towards which we direct certain actions. Such a view would help to bridge the gap between theoretical and practical reason. And indeed it is how it is understood by some recent writers on this topic (Velleman 2000, Noordhof 2001). But I want to argue that this view is false: truth is not a goal of belief in the purposive or in the action sense. It follows the sense in which we can talk of truth as a norm is not this goal oriented sense.

I shall distinguish three main interpretations of the truth directedness of belief, from the weakest to the strongest: causal, normative, and intentional. I shall argue that the causal account is correct, but insufficient to characterise belief properly, and that the intentional account is incorrect. Only the normative sense gives us the right account of the aim of belief. But I shall also argue that the norm which governs belief is better understood as consisting in *knowledge* rather than in truth.

### 1. *The causal-functional account of truth-directedness*

The first sense, and *prima facie* the least controversial, in which one may interpret the claim that beliefs aim at truth is a descriptive sense, which tells us something about what beliefs are. It is simply a fact about beliefs, as a particular kind of mental state, that they have contents which are susceptible of being true or false. These contents are usually taken to be propositions, and it is in this sense that beliefs are said to be propositional attitudes. Truth-directedness just expresses this essential feature of beliefs, and in this sense there is no more to the notion of “aim” than this relationship of a believer with true or false contents. Now of course beliefs can be false. Should we then say that they “aim” at falsity as much as they “aim” at truth? No, of course. A proposition, as a possible object of belief, has what Wittgenstein called a “bipolarity”, but a belief, when it has a proposition as its object, is normally directed towards only one pole. Beliefs are candidates to truth, not to falsity. For to believe that P is to believe that P *is true*, and, as Moore’s paradox reminds us, it is *prima facie* odd to say : “I believe that P, but P is false”. This indicates that the normal function of beliefs is to be directed at true propositions rather than false ones. Now it is important that directedness in this sense is not to be understood as implying any form of intention of getting the truth from the believer’s part. Beliefs can perform this function without the believer being in any sense conscious that they do. It’s just the causal role of beliefs that they are the kind of mental states which register true information. Of course they often fail to perform this function, but it is nevertheless their normal function.

There are two familiar ways in which one can cash out the notion truth-directedness in this platitudinous descriptive sense. One is to use another familiar metaphor, that of the “direction of fit” of beliefs (Anscombe 1958, Searle 1983). Beliefs, unlike desires and other motivational states, have a “world-to-mind” direction of fit : they are supposed to fit the world when their contents are true. Desires have a “mind-to-world” direction of fit : they are states such that the world is supposed to fit them, and in this sense they are satisfied, but not true. Or, if one prefers, the criterion of success of a belief is truth, whereas the criterion of success of a desire is satisfaction. But the direction-of-fit metaphor does not seem to tell us more than the platitude itself, and it has often been criticised (e.g. Humberstone 1992, Sobel & Copp 2001).

The other way consists in considering truth-directedness as entailed by the familiar dispositional-functional conception of belief. According to this conception, an attitude is a belief only if it disposes a subject to behave in certain ways that would tend to realise his desires if the proposition towards which it is directed is true. More precisely, we can formulate the functionalist conception in terms of possible worlds, along the lines proposed by Robert Stalnaker: to believe that P is to have a

disposition to act in ways that would tend to satisfy one's desires in a world in which P is true (Stalnaker 1984: 15)<sup>2</sup>. We can also draw the contrast between beliefs and desires in dispositional terms. Thus Michael Smith says:

“A belief that P tends to go out of existence in the presence of a perception with the content that not p, whereas a desire that p tends to endure, disposing the subject to bring it about that P.” (Smith 1994: 115.)

The same idea is often formulated thus: when one discovers that one among one's beliefs is false, normally one tends to abandon it or to revise it. Many writers have appealed, implicitly or explicitly, to this functionalist platitude to account for the fact that one cannot believe at will. Indeed, it is in the context of his discussion of this issue that Bernard Williams (1970) first coined the phrase “beliefs aim at truth”. One of his main points was that to believe at will, irrespective of whether the content of a belief is true, would be impossible, because such “beliefs” would not have the normal causal role of beliefs, which is to serve as intermediaries between perceptual inputs and behavioral outputs:

“A very central idea with regard to empirical belief is that of coming to believe that P because it is so, the relation between a man's perceptual environment, his perception, and the beliefs that result. Unless a concept satisfies the demands of that notion, namely that we can understand the idea that he comes to believe that P because it is so because his perceptual organs are working, it will not be the concept of empirical belief.” (Williams 1973: 149)

Although Williams here talks about the *concept* of belief, the functionalist platitude concerns the *nature* of belief as a mental state. It means that it is the essence of belief to be a disposition to cause certain behaviours given certain desires and such that the proposition believed is true. But the sense in which it is the essence or nature of belief is a *causal* one: as a matter of fact belief is the kind of attitude which has this causal role. It is not because a belief, by definition, is the kind of attitude which is directed towards truth that it has this kind of causal role; on the contrary it is because it has this kind of causal role that it is the kind of attitude which is directed towards truth. This difference will be important below.

Truth-directedness and functional role are certainly minimal features of belief. But do they suffice to characterise an attitude as belief? No. In the first place, the fact that to believe that P is to believe-true that P, although it can serve to distinguish belief as a propositional attitude from mental states which are not propositional (such as sensations, *qualia* of feels) is hardly individuating of belief

---

<sup>2</sup> For a defense of this view as an interpretation of the aiming at truth feature and against belief-voluntarism, see Bennett 1990

itself as compared to other propositional attitudes: for instance wishing that P entails wishing that P is true, hoping that P entails hoping that P is true, and even desiring that P – at least when desiring is propositional – entails desiring that P is true. The direction of fit metaphor, and the functionalist platitude are supposed to sort out conative attitudes (desires, wishes, wants, volitions, etc.) from cognitive attitudes. But they do nothing to sort out belief from other cognitive attitudes: thinking that P, considering that P, judging that P, seeing that P, learning that P, or even imagining that P also have the “world to mind” direction of fit. They too, in this sense, can be candidates to truth. It can be held that all these attitudes involve belief in some sense, but the criterion is certainly not enough fine-grained to distinguish belief from other cognitive attitudes (Velleman 2001: 249).

## 2. *The normative account of truth directedness*

It is not enough to say that belief is an attitude which tends causally to produce certain effects in response to certain inputs; nor it is enough to say that a subject who discovers that he has a false belief is disposed to revise it. In the first place, the functionalist platitude leaves out something essential: beliefs are not simply states which instantiate certain causal relations, but also states which enter into rational relations. Beliefs have normative properties, i.e. properties such that if certain patterns are not instantiated, they are incorrect or wrong. It is not easy to say what a normative property is, but we can say that normative properties are properties which give rise to certain kinds of *oughts* (without trying here to analyse further the nature of these *oughts*<sup>3</sup>). For instance someone who believes that P, and that if P then Q, *ought* to believe that Q. This is not a matter of a regularity linking the mental states endowed with these propositional contents; it is that if someone has the two first beliefs, but does not have the third, there is something *wrong*. Similarly one ought not to have inconsistent beliefs. So there are things that we ought to believe, and this fact is essential to the nature of belief. Among these are the constraints which weight upon the evolution of belief under the impact of evidence. Someone who believes that a certain amount of evidence supports an hypothesis ought to believe the hypothesis. Someone who believes that an hypothesis is better, or simpler, than another ought to believe it, etc. The problem here is not specify the exact nature of these constraints, which is controversial. But it is reasonable to suppose that there is one constraint which is basic for belief, and which accounts for the others: we ought to believe *true* propositions. And we may suggest that this normative property of belief is what we mean when we say that beliefs aim at truth. The aiming-at

---

<sup>3</sup> It's a disputed question what the exact form for expressing normative properties is. See in particular Broome (2000). I adopt here the framework of what I call normative conditionals in Engel 2002. On these issues, see also Zangwill 1998 and Wedgwood 2002

truth property is here a fundamental dimension of epistemological assessment of our beliefs, the basic norm for belief. Let us call this the *norm of truth (for belief)*.<sup>4</sup> Let us try to spell out what the norm in question is. It cannot be formulated as the imperative to believe any proposition when it is true:

(NT\*) *For all P, if P is true, then you ought to believe that P*

For there are plenty of propositions which are true, and which are not worth believing, if only because we cannot clutter our minds with trivialities. For instance most of the informations that I can get from a phone book are true, but no one should bother to believe all these things.<sup>5</sup> Similarly that there are 235451 blades of grass in my garden may be true, but why should I believe it? Likewise, too, it would be absurd to read the symmetric of NT\* as forbidding us to believe any falsehood. For it is common experience that we do. *Ought* implies *can*, and it would be crazy to oblige someone to believe *all* truths and to disbelieve *any* falsehood. A more perspicuous formulation of the norm of truth should not say that we ought to believe any truth whatever, but that a belief is correct only if the believed proposition is true. Hence the proper formulation of the norm of truth should not be (NT\*), but:

(NT) *For all P, one ought to believe that P only if P*

which does not have the consequence that any true proposition must be believed or is worth believing.

In what sense does (NT) explicitate the truth-directedness of belief? As we have just seen it says that beliefs do not have only causal properties, and that truth-directedness is not simply a causal feature of beliefs: it is a normative property of beliefs, where a normative property is expressed by a conditional of the form (NT). The norm of truth for beliefs seems to be basic or minimal with respect to the other epistemic norms : for someone who believes that P, and that if P then Q, believes that these propositions are *true*, and on that basis, believes that Q is *true*; if he believes that P is *true*, then he must not believe that not P is *true*; and if he believes that evidence E is evidence for the *truth* of hypothesis P, then he ought to believe P, and so on.

Now, it may be asked, in what sense is (NT) supposed to be a norm? In general to what extent does the fact that belief has such normative properties individuate belief as a mental state? For

---

<sup>4</sup> It is important to specify that it is a norm for *belief*, since it should not imply that truth is *in itself* a norm. I investigate this issue in Engel 2000 and Engel 2002, ch. 5.

<sup>5</sup> In Sartre's novel *La nausée*, the character named « The autodidact » spends his time at the town library, reading every single book there from A to Z in the catalogue.

instance is it the case that from the fact that beliefs ought to be closed under *modus ponens* that there cannot be someone who believes P, and if P and Q, but does not believe Q? Of course there are such people, at least occasionally. Should we then say that they do not believe P nor if P then Q? <sup>6</sup> A number of beliefs are irrational, inconsistent, and so on, and they do not seem not to be beliefs for that. The same objection can be addressed to the norm of truth: can't we aim at having *false* beliefs? Can't we aim at having beliefs for other reasons than the fact that they are true or justified? It is precisely at this point that Williams (1973) formulates his famous argument against the possibility of believing "at will". If such believing were possible, says Williams, one could have belief irrespective of whether it is true or not, hence irrespective of the basic norm of truth. But, he argues, in that case the subject would be in a contradictory state :

"It is not a contingent fact that I cannot bring it about just like that that I believe something, just as it is a contingent fact that that I cannot bring about, just like that, that I am blushing. Why is this? One reason is connected with the characteristic of beliefs that they aim at truth. If I could acquire a belief at will, I could acquire it whether it was true or not; moreover I would know that I could acquire it whether it was true or not. If in full consciousness I could acquire a belief irrespective of its truth, it is unclear that before the event I could seriously think of it as a belief, i.e as something purporting to represent reality." (Williams 1973: 148)

Williams argument, as an argument against the possibility of believing at will, has been much questioned, and it is not my purpose here to examine it<sup>7</sup>. But it indicates clearly what role the norm of truth is supposed to play in the individuation of a given mental state as a belief. A subject cannot ascribe to himself a belief unless he recognises that belief is constrained by the norm of truth. So the connection seems to be this: if a subject claims to have a belief, in a conscious way, then he cannot fail to recognise the normative requirement (that only truths should be believed). To think of oneself as believing that P involves at least the tacit recognition<sup>8</sup> of this norm, for it would be incoherent, as Williams suggests, to think of oneself as having a belief that P without thereby aiming at having a true belief. In this respect the connection between the very concept of belief and the epistemic norm of truth is conceptual or constitutive.

Several writers have proposed to take the conscious recognition of the norm of truth as the basic criterion for a belief. Thus Humberstone says:

---

<sup>6</sup> Jackson 2000: 101 notes that the normative constraint clashes with Stalnaker's account of belief in terms of possible worlds: subjects who believe that P and that if P then Q, but would do not believe Q will be subjects who do not not have a single system of beliefs.

<sup>7</sup> See Winters 1979, Engel 1999 for further discussion

<sup>8</sup> I shall come back below on this.



“... unless the attitude-holder has what we might call a controlling background intention that his or her attitudinizing is successful only if its propositional content is true, then the attitude is not that of belief.” (Humberstone, 1991, p. 73.)

and David Velleman has proposed :

“To believe a proposition is regarding a proposition as true with the aim of accepting it as true”. (Velleman 2000: 251, 113-115)

Believing, in this sense, is not simply taking a proposition to be true, nor being disposed to act on the basis of its truth; it is endorsing it, and being committed to its truth. As Velleman says, this sorts out belief both from the other propositional attitudes and from the other “doxastic”, or “belief-like” attitudes such as thinking, considering, or supposing. It also sorts it out from imagining :

“What distinguishes believing a proposition from imagining or supposing it is a more narrow and immediate aim – the aim of getting the truth value of that particular proposition right, by regarding the proposition as true only if it really is.” (Velleman 2000: 252)

According to Velleman, this definition of the aim of belief is only minimal, and allows a variety of relationships between a subject and the propositions that he believes to be true. He allows that his definition could apply to unconscious beliefs, or to a sub-system within the agent, and not to conscious beliefs (2000: 253). But the most natural understanding of his definition concerns the case when a person intentionally aims at truth, by forming an act of judgement:

“ He entertains a question of the form “p or not p?” wanting to accept whichever disjunct is true; to that end he accepts one or the other proposition, as indicated by evidence or argument; and he continues to accept it so long as he receives no evidence or argument impugning its truth. the resulting cognition qualifies as a belief because of the intention with which it is formed and subsequently maintained by the believer, and because of the way in which that intention regulates its formation and maintenance.” (Velleman 2000: 252)

It is this interpretation of truth directedness which I want to criticise.

### ***3. The intentional account of truth-directedness***

Suppose, then, that believing is identified with (a) the conscious recognition of the basic norm of truth and (b) the intention to respect and maintain this norm in the formation of one’s beliefs. Let us call this the *intentional* interpretation of truth-directedness. It does not imply that we should believe as

many truths as possible. It also allows us to distinguish clearly believing from a disposition to act as if the belief were true, for this disposition can exist without any recognition of the norm of truth on the part of the subject. Finally it incorporates Williams' reason for denying that belief is voluntary: if when I regard a proposition as true, I accept it with the aim of accepting it as true, and if I do so consciously, I cannot at the same time will to believe it while thinking that it is not true, and that the reason for which I accept it has nothing to do with its truth. So in this sense, the intentional proposal entails the belief cannot be under voluntary control.

Nevertheless, the very fact that belief is defined as a purposive activity does imply some sort of control. If believing is essentially purposive, belief must have a goal and the goal of a belief has got to be something external to belief itself. For otherwise the mere fact that we take a proposition to be true would achieve this goal. Truth is well suited to be the aim of belief because, in general, the truth of a proposition is quite independent of whether it is believed by me.

On the picture described here, the norms of belief formation are means towards an end which is the goal of believing, in the same sense as that in which certain actions are instrumental in getting a certain result. In this sense, believing implies a form of deliberation, in order to compare our beliefs with the objective of reaching the truth and retaining only those which agree with this objective. So one important consequence of the intentionalist view of truth directedness is that there is much more similarity between belief, as the output of theoretical deliberation, and action, as the output of practical deliberation:

“Reasons for acting would be considerations relevant to the constitutive aim of action, just as reasons for believing are indicators of truth, which is the constitutive aim of belief. and anyone who wasn't susceptible to reasons for acting, because he had no inclination toward the relevant aim, wouldn't be in a position to act, and therefore wouldn't be subject to reasons for acting, just as anyone who has no inclination towards the truth isn't in a position to believe and isn't subject to reasons for belief” (Velleman 2000: 189)

On this view, aiming at truth is the major premiss of a practical reasoning (“Let me possess the truth [about P] “ or “Let us make judgements (about P) for which there is preponderant theoretical reason”) , which has a minor premiss (“If I assent to P I will be making a judgement for which I have preponderant (theoretical reason”) , and which as a judgement as a conclusion, which is a decision.(See Walker 1996). A Paul Noordhof says:

“The aim of truth is not internal to by being applied from outside via consciousness. consciousness makes manifest the attractiveness of being disposed to act upon the truth. .. The basic idea is that it is part of the nature of conscious attention that it gives determinative weight to the norm of truth. It

makes truth-likelihood the determinate factor in the formation of a certain kind of motivational state (Noordhof 2001: 258)

The direct consequence of this is that the norm of truth is a practical norm:

“One reason for thinking that the norm of truth is a practical norm is that both intending to judge that  $p$  and judging that  $p$  are actions. The norm of truth provides considerations for acting in these ways. Broadly conceived, practical norms are precisely those which provide considerations for action. A second reason is that agents act so as to satisfy their desires. An agent’s desires are only satisfied as a result of the agent’s action if the beliefs and judgements upon which the agent acts are true. Therefore is part of practical reason that beliefs be true.” (Noordhof 2001: 263)

But this account is very problematic on several counts.

In the first place it does not allow us to sort out beliefs from other kinds of attitude, such as guesses, suppositions or conjectures.<sup>9</sup> Guesses, like beliefs, are true or false, and they have the world to mind direction of fit. The intentional aim of a guess is truth too. In that respect guesses are quite unlike imaginings, for instance. In imagining that  $P$  (for instance that I am an Oxford don), I imagine that it is true that I am an Oxford don, but the success of my imagining does not depend upon the truth of its content in the way in which the success of a belief does: I may successfully imagine myself wearing a gown, sitting at the High Table, without it being possibly true that I am in this stance. Similarly I may suppose or hypothesise that  $P$  without it been necessary that I suppose that  $P$  be actually true. (Velleman 2000: 250-2). By contrast, when we guess we have the purpose of getting things right. Now if the intentional analysis of aiming at truth were correct, we should expect that guessing should be governed, like believing, by epistemic norms, and in the first place by the norm of truth. But clearly guesses differ from beliefs in the amount of evidence which they require. Of course some guesses are more serious than others, but the epistemic standards which govern guess are by definition lower than those which govern beliefs. (The reason for this is that belief is much more closely related to knowledge than guessing is; I shall come back on this in § 4).

In the second place, the intentional account of aiming at truth applies more readily to states of mind which are admittedly close to belief, but which are distinct from it, such as judgments and acceptances. To accept that  $P$  is to take it from granted that in a context, without necessarily believing that  $P$ . For instance I may accept that this student is good, in order to encourage him, although I do not believe it. Acceptance is certainly an intentional act. In this sense, acceptances do not aim at truth in the same sense as the one in which beliefs do<sup>10</sup>. Judgment, on many analyses, and notably on

---

<sup>9</sup> Here I am much indebted to Owens 2001

<sup>10</sup> There is a large literature on the difference between belief and acceptance. It is review in part in Engel (2000)

Descartes', is indeed a voluntary act of assent to the truth of a proposition. And indeed such descriptions of believing as Velleman's and Noordhof's quoted above fit perfectly the activity of judging. It fits also the activity of inquiry. In inquiry, as it traditionally described (e.g. by Descartes, or by Peirce<sup>11</sup>) we do take into explicit consideration our objective, truth, and we take the steps which are in accordance with this objective. Inquiry is an intentional and reflective activity directed to the aim of truth for a given set of beliefs considered during a certain span of time. It is plausible to say, in this sense, that truth is the goal of inquiry, and that the inquirer has a reflective attitude towards this goal. Nor does it imply that the inquirer must believe only truths. He must, as much as he can, but he should also know that he may let pass a number of falsehoods. It is the point of engaging in processes of belief revision. In contrast, the believer of an individual belief does not consider the aims of inquiry when he comes to believe a given proposition. This is not because the general aims of inquiry do not figure in the background of believing or that they are irrelevant to it, on the contrary (otherwise belief would not be subject to norms). It is simply because the believer does not have *to reflect* about the norms or goal of inquiry to be subject to them. On the model presupposed by the intentionalist reading my attending to my reasons and my attending to my belief is supposed to show that I am responsible for this belief. But why is this power of reflection supposed to show that I am in control over this belief? Could it be because I attend to the norms of belief, and reflect that the norm "believe what you take to be true according to the evidence at hand" forces me to entertain the belief? But being aware of the norm does nothing to move me to believe.

A more plausible description of the situation is this. We have first-order beliefs, which are rational or not. We do not have any control over them. They are just forced upon us. Neither do we have control over the norms of rationality. We do not become rational just by being aware our of beliefs and of the norms which govern them. Certainly if a conflict arises between her first order beliefs and what she believes that she ought to believe, then she should try to change her beliefs. But she does not do that because she is aware of these norms and of her beliefs. She does it because she has to comply by these norms, and is forced to do that.

A weaker version of the intentional account is, however, more plausible. We could say that awareness of our own beliefs and of the norms of reasons is a precondition of rational control, and that *if* we have this awareness, then we can be in position to accept certain beliefs and reject others. But it does not say that control is effected *by* this very awareness. It says that it is a necessary, but not a sufficient condition. Certainly to be able to maintain a certain belief, to stick to it, or to reject it, I must

---

<sup>11</sup> See e.g. Bernard Williams 1978, Peirce 18

be conscious of it. And to assess it, it seems that I must be aware of the norms which govern it<sup>12</sup>. But we should not confuse our second-order beliefs about the way we maintain our beliefs and revise it with the conditions of formation of our first-order beliefs.

A third reason that we have to doubt the coherence of the intentional reading of truth-directedness is that it puts on a par theoretical norms and practical norms. On the intentionalist model, there is a parallel between the prudential or practical reasons for belief on the one hand, and the epistemic or theoretical reasons on the other. Even if one does not raise here the question whether one kind of reasons can be overridden by the other, or reduced to it (I come back to this issue in the Appendix), there is a strong asymmetry here. We have an intrinsic authority over what we do which cannot be transferred to the kind of authority which is claimed by the intentionalist reading of truth-directedness to apply to belief. In the practical sphere, we cannot say: "I am willing to  $\phi$  but I ought not to". My reasons not to  $\phi$  do not lose their probative force because I have decided to  $\phi$ . But in theoretical sphere, there is nothing paradoxical in "I believe that  $P$ , but I ought not to". You may be denied any experience of evaluating contrary to reasons, but you are by no means denied the experience of evaluating contrary to evaluation. Failure to exercise my free will are common and recognisable. But failures to comply by the norms of theoretical reason are elusive. (This is why it is in general easier to be conscious of being akratic than it is to be conscious of being a fool). In other words, my judgements about what I ought to believe lack the intrinsic authority over my beliefs which my practical judgements enjoy about my actions.<sup>13</sup> In this sense, the claim that truth is a *practical* norm is much doubtful.

There is, therefore, no good reason to accept the view that truth is the intentional goal of belief in any teleological sense. It does not follow that the normative account is wrong. We have seen that it is usually associated to the idea that, in order to be responsive to the norm of truth, believers must recognise this norm and reflect upon them. But in order to believe that  $P$ , it is no more necessary to be aware that truth is the aim of belief than it is necessary to believe the proposition that *it is true that  $P$* . Believing that  $P$  entails believing that  $P$  is true, but it does not involve any attitude towards the proposition " ' $P$ ' is true". It only involves an attitude towards  $P$ . Similarly, for believing that  $P$ , it is not necessary to believe that truth is what one is aiming at. Being able, at least tacitly, to recognise the epistemic norms of beliefs is certainly a necessary condition for having the concept of belief. But in order to be a believer, one does not need to attend reflectively to these norms. So the fact that belief aims at truth (in the normative sense) is one thing, and the fact that inquiry has truth as its goal is another thing. They are, of course, related, and one may think that if truth were not the norm for

---

<sup>12</sup> I am indebted here to the discussion in Owens 2000 and 2001

<sup>13</sup> See Owens 2000, 108-109.

individual beliefs it could not be the general goal of inquiry. But the believer in an individual belief is not someone who contemplates the general goal of aiming at truth and acts upon it.

#### 4. *Aiming at truth and aiming at knowledge*

The intentional or teleological interpretation of truth directedness is encouraged by a common picture of the nature of knowledge and justification. The picture is well articulated, for instance, by Laurence Bonjour:

What makes us cognitive beings at all is our capacity for belief, and the goal of our distinctively cognitive endeavors is *truth*. We want our beliefs to correctly and accurately depict the world... The basic role of justification is that of a *means* to truth, a more directly attainable mediating link between our subjective starting point and our objective goal.... If epistemic justification were not conducive to truth in this way, if finding epistemically justified belief did not substantially increase the likelihood of finding true ones, epistemic justification would be irrelevant to our main cognitive goal and of dubious worth. It is only if we have some reason to think that epistemic justification constitutes a path to truth that we as cognitive human beings have any motive for preferring epistemically justified beliefs to epistemically unjustified ones. Epistemic justification is therefore in the final analysis only an instrumental value, not an intrinsic one. (Bonjour 1985: 7-8)

This familiar picture is encouraged by two related ideas. One is the traditional definition of knowledge as justified true belief. The second is precisely the teleological conception of truth as the “end” or “ultimate goal” of inquiry. Given that truth is that ultimate goal, justification operates as the means towards that end. As we have seen, it is easy to transpose this picture, which holds for inquiry, hence for the formation of beliefs in general, to the attitude that a subject has when he forms a particular individual belief.

The picture has been most criticized, but for other reasons than those which interest me here. It is criticised by those who consider that the gap between justification and truth cannot be so large that truth could be considered as a goal. If one subscribes to an anti-realist theory of truth in particular, there should not be much difference between truth and justification. In this spirit for instance, Richard Rorty has attacked the (Peircean) claim that truth could be the end of inquiry. How, he asks, could one aim at something which one, by definition does not know? An aim, by definition is something which one can at least figure out. And by definition the ultimate end of inquiry is unfathomable (Rorty 1995). Similarly Jane Heal (1988) has argued that inquiry cannot have a *general* concern for truth as an ultimate end. But whether or not we agree that truth is a goal in the sense of an intrinsic value, these debates are besides the point. For they all presuppose that the relevant sense of “aim” in the phrase “beliefs aim at

truth” is the intentional sense. But I have argued that this is wrong. The relevant sense is the normative sense. But the normative sense does not require at all that truth be conceived as a goal or as a value. It just requires that the norm of truth plays a constitutive role in the formation of beliefs, without the subject needing to aim, in the teleological sense, at a certain objective. It is, one the terms, an *a priori*, conceptual, requirement. To reinforce this point, we need to try and specify more what the point of belief is. And the point is not simply to believe only truths, but to be able to *know* them.

I have rejected the intentional account of aiming at truth by arguing that it wrongly equates believing to purposive attitudes such as guessing. But I have not explained why there should be a difference in the respective norms which govern the two kinds of states. For we have agreed that truth governs guessing as well as it governs belief. So what is the difference?

The difference lies in the fact that belief is in fact governed by another norm than the norm of truth (NT), although a quite related one. The norm in question is the norm of knowledge. When we believe that P, we aim at knowledge as much as to truth. For we do not want our beliefs simply to be true. We want them also to be - in some sense- justified or reliable. (Of course, my use of “we want” here should not be understood here in the intentional sense). Suppose that I come to believe that P on the basis of my guessing that P. Then even if my guess turns out to be successful – that if it is indeed the case that P – my belief is true, but does it amount to knowledge? Intuitively no. The reason why is familiar from the the analyses inspired by Gettier’s problem and by the definition of knowledge as the exclusion of relevant alternatives: guessing that P is compatible with too many alternatives which could have made it the case that one does not know that P. Recently several writers have suggested that knowledge, not truth, is the standard of correctness for belief. A belief is botched, even if it happens to be true, unless it amounts to knowledge. In this sense belief aims at knowledge (Williamson 2000: 47, 208; Peacocke 1999: 34).

This suggests the following reformulation of our basic norm for belief as a norm of knowledge :

(NK) For any  $p$ , believe that  $p$  only if , for all you know,  $p$

(NK) is distinct from (NT), but it is stronger, and entails it. If knowledge sets the standard for belief, given that knowledge entails truth, truth is still – in the normative sense – the aim of belief.

Why should (NK) rather than (NT) give a better account of the norm of truth for belief? The answer is simple. Belief aims at truth, in the sense spelled out by (NT), but, by definition, beliefs can be false: what I believe, from my own perspective to be true might not be true. This is unlike

knowledge, which by definition implies the truth of the belief. In Williamson's terms, knowledge is a factive attitude (Williamson 2000: 33-45), like seeing that P or perceiving that P (to perceive that P entails P, to see that P entails P). Knowledge is the most general among factive attitudes. Now by definition "believing truly" does not entail "knowing" and is not factive. But if our beliefs were true, in the sense that it would be sufficient for them to produce the truth of their propositional objects, they would be knowledge. It is in this sense that knowledge sets the standard for belief. It is because knowledge, and other factive attitudes, imply this necessary relationship to truth that they can serve as a model for belief, which is thus imperfect knowledge.

If one adopts this view, many things fall into place. For instance it is easy to understand that belief is not voluntary if we see that beliefs aim at knowledge, for it is in general impossible to know something at will. (Williamson 2000: 46). On this view too, failures to comply by the norm of truth are also failures to know. If, in a given circumstance, I feel that I ought not to believe that P because P is false, it is also a case where I realise that I cannot know that P. The norm of knowledge (NK) is in this sense more fundamental than the norm of truth (NT).<sup>14</sup>

I cannot here argue directly for the view that knowledge is the aim of belief, but the claim can be reinforced by answering two *prima facie* objections to it. Both threaten to render the proposal empty.

The first objection can be formulated thus. Suppose that knowledge, instead of truth, sets the standard for correct belief. Suppose too that knowledge is defined in the traditional way as justified true belief. But then we cannot *explain* the standard or the epistemic norms for belief, for the traditional definition is precisely supposed to give us a definition of knowledge in terms of justification. In general it is precisely for this reason that most epistemologists (like Bonjour in the quote above) consider that truth is the external goal of the enterprise of knowledge. For if knowledge, instead of truth, were the goal, we could not analyse knowledge in terms of justification, for it would involve the very concept to be analysed in the *analysans*.<sup>15</sup>

---

<sup>14</sup> I therefore agree with Wedgwood (2001) that the normative sense (NT) is the correct specification of the aim of belief. But I disagree with him that this norm is more basic than the norm of knowledge (2001: 289-90)

<sup>15</sup> The objection is well formulated by David 2001: "Although knowledge is certainly no less desirable than true belief, the knowledge-goal is at a disadvantage here because it does not fit into this picture in any helpful manner. Invoking the knowledge-goal would insert the concept of knowledge right into the specification of the goal, which would then no longer provide an independent anchor for understanding epistemic concepts. In particular, any attempt to understand justification relative to the knowledge-goal would invert the explanatory direction and would make the whole approach circular and entirely unilluminating. After all, knowledge was supposed to be explained in terms of justification and not the other way round. This does not mean that it is wrong in general to talk of knowledge as a goal, nor does it mean that epistemologists do not desire to have knowledge. However, it does mean that it is bad epistemology to invoke the knowledge-goal as part of the theory of knowledge because it is quite useless for theoretical



The second objection is that if one takes knowledge, defined as justified true belief, as the aim of inquiry, then there cannot be any difference between knowledge and true belief. For justification can only be a means towards truth as the end of inquiry. Hence the *telos* of inquiry must be true belief, not justification. So if we take knowledge to be the *telos* of inquiry, there should be no difference between knowledge and true belief. But this is absurd, for if it were correct there would be no distinction between knowledge and successful guessing.<sup>16</sup>

The answer to these objections is that if we want the epistemic aim of belief to be knowledge, we have better *not* define knowledge in terms of justified true belief. And indeed this is precisely the line taken by Williamson. If knowledge is the aim of belief, knowledge must not be defined as the product of two factors, justified belief and truth; it must be taken as a primitive state, in terms of which belief is to be understood, and not the other way round. To believe that P, on such a view is to have an attitude towards P which one cannot discriminate from knowing, but which might fall short of being a state of knowing. To believe that P is to treat P as if one knew P, for all one knows. (Williamson 2000: 40).

### ***Conclusion***

I have examined three senses of the ambiguous phrase “aiming at truth”. The causal one is insufficient to characterise belief. The normative sense is the correct one, but I have argued that it should not be understood in any intentional or teleological sense. I have also argued that the norm of truth for beliefs should better be taken to be the norm of knowledge (although the latter entails the former). In taking knowledge as the aim of belief, we must not be understood (NK) as specifying an *external* goal of belief, in a teleological sense. This picture is precisely the one which I have rejected by criticizing the intentional interpretation of aiming at truth. The aim of belief is not external to the attitude of believing, but internal to it. This means that the question of the nature of belief, and of the norms which govern it, is independent of the question of the value of truth as the goal of inquiry.

---

purposes: The knowledge-goal has no theoretical role to play *within* the theory of knowledge.” (David 2001: 154)

<sup>16</sup> Actually some writers, most notably Crispin Sartwell (1992), do not take it to be absurd; on the contrary they claim that knowledge is mere true belief on the basis of this argument. For a discussion of Sartwell’s argument, see Olsson 2003. Sartwell’s argument is the product of *both* maintaining that truth is the aim of inquiry and that knowledge is the aim: given that they have the same aims, it follows that they are the same thing! One philosopher’s *modus tollens* is another philosopher’s *modus ponens*. Olsson shows that there is a *reductio* of the proposed thesis that knowledge is merely true belief, but that this *reductio* is not so easy to formulate.

## APPENDIX

In this paper, I have not examined what seems, *prima facie*, to be an important objection to the very idea that truth could be the aim of belief, even in the normative sense here adopted. It is the objection that beliefs could only aim at truth if they were taken to be *categorical* or *full* beliefs. But if, in addition to full beliefs, which are by definition evaluated as true or false (or more radically instead of them), there were also *partial* beliefs or *degrees of belief*, then the claim that truth (knowledge) is the aim of belief would be in jeopardy. This appendix tries to address in outline such an objection.

A Bayesian, who holds that there are no full beliefs, but only partial beliefs (or that full beliefs are only limit cases of partial ones) cannot agree that the norm of truth (NT), or even less (NK) is the norm of rational belief. He will take these norms as typical of dogmatic epistemology. In Ramsey's (1927) words, he will take the logic of "coherence" to be more important than "the logic of truth". Moreover, he will deny that in believing we are responsive solely to a *theoretical* norm of truth or of knowledge. Belief, for the Bayesian, in so far as it obeys the laws of probability, is as much responsive to the norms of *practical* or *prudential* rationality as it responsive to the norms of theoretical rationality. The degree of a belief is defined by its betting quotient, and in so far as the agent expects to maximise his expected utility, if his partial beliefs violate the laws of probability, and are in this sense incoherent, a Dutch book can be made against him. The Bayesian analysis is a version of what I have called above the causal account of truth-directedness, except that it precisely gets rid of any notion of aiming at truth or of being directed towards truth. On the pragmatic analysis of belief championed by Ramsey and Jeffrey, "the kind of measurement of belief with which probability is concerned is a measurement of belief qua basis of action" (Ramsey 1927 (1990: 67; Jeffrey 1992).

Now if belief is not an all-or-nothing affair, and if beliefs obey the norms of practical rationality, then it seems that the Bayesian analysis is not only incompatible with the one proposed here, but also that the latter is just wrong. But it is not obviously so. James Joyce (1998) addresses directly this problem, and proposes what he calls a "non pragmatist vindication of probabilism", which he claims to be compatible with the view that beliefs are partial.

Joyce starts by a reformulation of the norm of truth as

The Norm of Truth (NT) : An epistemically rational agent must strive to hold a system of full beliefs that strikes the best attainable overall balance between the epistemic goal of fully believing truths and the epistemic evil of fully believing falsehoods (where fully believing a truth is better than having no opinion about it, and having no opinion about a falsehood is better than fully believing it)

This is an explicitly teleological formulation, but this need not detain us for the purposes of this discussion. Now is NT really incompatible with the idea that what we should aim at is not truth or full true beliefs, but only high degrees of credence or degree of subjective probability? No, for it could be said that in aiming at high degrees of credence is in fact aiming at truth. Likewise the lower degree of credence we give to a falsehood, the better we have achieved the goal of avoiding false belief.

So Joyce reformulates the Norm of Truth as

The Norm of Gradational Accuracy (NGA): An epistemically rational agent must evaluate partial beliefs on the basis of their gradational accuracy, and she must strive to hold a system of partial beliefs that, in her best judgement, is likely to have an overall level of gradational accuracy at least as high as that of any alternative system she might adopt.

But this is not enough. For we have to ensure that, when forming their degree of beliefs, agents only frame them in terms of the *epistemic value* of having a high degree of credence. But it is by no means guaranteed by the pragmatic Ramseyan scheme, since by definition degree of belief is as sensitive to high expected utility as it is sensitive to high degree of credence. We have to ensure that in some sense there is *coincidence* between beliefs that elicit a high degree of credence and beliefs which elicit a high expected utility. In other words, the aim of “truth”, or of the high credence which approximates truth in the best possible way has to be aligned on the aim of desirability, or it has to be pure, so to say, whereas in the classical Ramseyan picture, it is always mixed.

Of course a pragmatist about reasons for belief will consider that the Bayesian scheme is perfectly in order if it mixes high credence function and desirability function, for it is precisely the gist of a pragmatist conception of values that the value of truth is a utility value, and that in some cases utility can override pure epistemic worth. In order to avoid this result we have to ensure that the two can of values either coincide or can be separated sharply so that only the epistemic goal is satisfied.

In other words, we have to make a distinction, which the Bayesian Dutch book argument does not make, between prudential or pragmatic reasons for believing (believing that P when it pays to believe that P) and epistemic reasons for believing.

In order to show that we can aim for a purely epistemic goal while at the same time ensuring that our degrees of belief are measured by probability functions, we must restrict the class of functions in a certain way. And Joyce shows that there are such functions, taking his inspiration from De Finetti and Savage. Suppose that there were a *miser*, say Moliere’s Harpagon, who desires only money, and for whom money has always constant marginal utility by definition, however rich or poor he happens to be. He is presented with a list of propositions  $X = (X_1, X_2, \dots, X_n)$  and he is offered a dollar to designate a corresponding sequence of real numbers  $p = (p_1, p_2, \dots, p_n)$ . He must repay a portion of his dollar when the truth values of the  $X_i$  are revealed. The size of his loss is fixed by the game’s

scoring rule, which is a function  $S(p, \omega)$  that assigns a penalty up to 1\$ to each pair consisting of a joint truth-value assignment  $\omega$  for the propositions in  $\Omega$  (“worlds”), and a sequence of numbers  $p$ . Some games are scores using *quadratic loss* rule that have the form :

$$S(p, \omega) = \sum_i \lambda_i [\omega(X_i) - p_i]^2$$

where  $\lambda_1, \dots, \lambda_n$  are non negative real numbers that sum to one, and  $\omega(X_i)$  is the truth value that  $X_i$  has in world  $\omega$ . There are rules of this kind such that each  $X_i$  is weighted equally, so that  $\lambda_1 = \lambda_2 = \dots = \lambda_n = 1/n$ . This is called a *Brier rule*.

The miser following this rule will have to report previsions which obey the laws of probability. And a Dutch book will be made against him only in so far as he will violate these laws, but only on so far as his loss in epistemic utility equates his loss of utility.

Now, suppose that there are such non pragmatic rules of accuracy satisfying the norm NGA as an analogue of the norm of truth. The problem, raised by Gibbard (2003, 2003a) about this scheme, is: does this rule capture the pure concern with the truth? It is not evident. He gives an example.

Let one’s credence in a proposition  $P$  be 0.8. In the light of that credence we ask what credence is most desirable. One chooses a value  $x$  to maximise the expected value of one’s score. Let  $\bar{x} = 1 - x$ , and let the score standard for evaluating the chosen credence  $x$  be the Brier score: for  $P$  true score  $g_1(x) = 1 - \bar{x}^2$ , which increases as  $x$  increases. For  $P$  false score  $g_0(x) = 1 - x^2$ , which decreases as  $x$  increases. Then the expected value  $S(x)$  of one’s score is :  $S(x) = 0.8 g_1(x) + 0.2 g_0(x) = 0.8 (1 - \bar{x}^2) + 0.2 (1 - x^2)$ . This value is maximised by given the chose credence a value 0.8. Hence there is an exact correspondence between the expected value and the degree of credence. It is a case where desirability and degree of credence coincide. The problem, as Gibbard shows, is that not all value functions  $g_1$  and  $g_0$  have this property. In other terms, the concern for truth is represented only by a small subset of the possible functions.

Joyce (1998) gives a way of narrowing down the possible functions so that pure concern with the truth is captured. Joyce proves that graduational accuracy can be measured by a function which respects the following conditions: *structure* (accuracy should be non negative, i.e small changes in degree of belief should not engender large changes in accuracy), *extensionality* (there is a unique correspondence between the degrees of credence of a person and the truth values of the propositions she considers), *dominance* (the accuracy of a system of degrees of belief is an increasing function of the believer’s degree of credence in any truth and a decreasing function of her degree of confidence in any falsehood), *normality* (differences among possible worlds that are not reflected in differences among

truth values of propositions that the agent believes should have no effect on the way in which accuracy is measured), *weak convexity* (if a certain change in a person's degrees of belief does not improve accuracy then a more radical change in the same direction should not improve accuracy either), and *symmetry* (when two degrees are equally accurate, there is no ground, based on consideration of accuracy to prefer one to the other). I cannot deal with these conditions here. But when accuracy is measured in this way, Joyce shows that conformity with the axioms of probability is a norm of epistemic rationality, whatever its prudential merits or demerits can be. In other words, this forces the Bayesian into the straitjacket of the disinterested research for truth, and vindicates probabilism *non pragmatically*.

Gibbard (2003, 2003a) argues that it is not evident that we can isolate pure concern for truth. What distinguishes the Brier score rule is the equal urgency of getting the credences right at every probability from 0 to 1. Then the difference between a credence of 0.47 and a credence of 0.56 is as urgent and important as the difference between 0.90 and 0.99. But that sounds odd. As Gibbard notes, the accuracy in degrees of beliefs can matter in the case of a scientific hypothesis – such as the hypothesis of Continental Drift in geology – after it has been widely established (some residual doubt can remain), but it does not matter in case of acting on one's beliefs (it does not matter whether I have 0.63 or 0.62 chances of being hit by a car when I cross the street; in either case the risk is high, and I'd better not cross the street). Gibbard objects that there is no reason, even in the case of the purest and the most disinterested scientific beliefs, to suppose that they will not affect our actions. Indeed on the classical pragmatic picture, the truth of our beliefs guarantees the fact that they guide our actions. How can we be sure that the pure aim of truth is our only concern? At best, it is our concern only when in some way – that determined by the special score functions or by Joyce's non pragmatic vindication – concern for truth coincides with utility. But that is not guaranteed to be always the case. In other terms, even when one measures beliefs in a way which would ensure that they respect the Norm of Gradational Accuracy, we have no guarantee that it will be always so. At most, as Gibbard says, pure concern for truth can have a *side value* for an inquiry which is not governed by a concern for truth as a *guidance value*. There is no “epistemic purity”.

The moral, it seems, is that truth is not the only guide we have, it is not the only goal, and it being essentially tied to action, our beliefs do not manifest a pure concern for truth. But the question whether truth is an intrinsic value or not was not, remember, our question. The norm of truth (NT) as I have formulated it does not say that truth or knowledge are the only values. It only says that the norm of truth is constitutive of being a belief. So it seems to me that the discussion above is not

affected by the answer that one gives to the question whether we should formulate beliefs as a all or nothing or as a graded affair.\*

---

\* Earlier versions of this paper have been read at the University of Konstanz in January 2003, and at the University of Rome Tor Vergata at a conference on knowledge and cognition in May 2003. I thank for their comments and encouragements Arthur Merin, Wolfgang Spohn, Gereon Wolters, Erik Olsson and Simone Gozzano.

## REFERENCES

- Anscombe 1958 *Intention*, Oxford, Blackwell
- Bennett, J. (1990) "Why is Belief involuntary?", *Analysis*, 50, 2, 97-107
- Bonjour, L. 1985 *The Structure of Empirical Knowledge*, Harvard, Harvard University Press
- Broome, J. 2000 "Normative Requirements", in Dancy, J., *Normativity*, Blackwell, Oxford, 78-99
- David, M. 2001 "Truth as the Epistemic Goal", in Steup 2001, 151-169
- Engel, P. 1998 "The Norms of the Mental", in L. Hahn, ed. *The Philosophy of Donald Davidson*, La Salle, Ill, Open Court
- 1999 "Volitionism and voluntarism about Belief", in A. Meijers, ed  
*Belief, cognition and the Will*, Tilburg, Tilburg University Press, 1-17
- 2000 ed . *Believing and Accepting*, Kluwer, Dordrecht
- 2001 "Is Truth a norm? ", in P.Kotatko, P.Pagin, and G. Segal  
*Interpreting Davidson*, CSLI, Stanford , 37-51
- 2002 *Truth*, Acumen, Chesham
- Gibbard, A. 2003 "Warrant the a priori, and plans for beliefs" ms ,  
<http://www-personal.umich.edu/~gibbard/flo03apr.pdf>
- 2003 a "The Aim of Belief" ms ,  
<http://www-personal.umich.edu/~gibbard/flo03app.pdf>
- Jane Heal (1987-88): "The Disinterested Search For Truth", *Proceedings of the Aristotelian Society*. LXXXVIII, 97-108
- Humberstone, L. 1992 "Direction of fit", *Mind* 101, 59-83
- Jackson, F. 2000 "Non cognitivism, Normativity, Belief", in Dancy, J. ed. *Normativity*, Blackwell, Oxford, 100-115
- Jeffrey, R. 1992 *Probability and the Art of Judgment*, Cambridge, Cambridge University Press
- Joyce, J. 1998 "A non pragmatic vindication of probabilism", *Philosophy of Science*, 65, 575-603
- Noordhof, P. 2001 "Believe what you want", *Proceedings of the Aristotelian Society*
- Olsson, E. 2003 "Minimal knowledge and the *Telos* of inquiry", unpublished
- Owens, D. 2001 "Does belief have an aim?" , *unpublished*
- Peacocke, C. 1999, *Being Known*, Oxford, Oxford university Press
- Ramsey, F.P. 1927 "Truth and Probability", in *Philosophical Papers*, ed. D.H. Mellor,  
Cambridge, Cambridge University Press 1990
- Rorty, R. 1995 "Truth has the Goal of Inquiry: Davidson vs Wright", *Philosophical Quarterly*
- Sartwell, C. 1992 "Why Know<ledge is merely True Belief", *Journal of*

*Philosophy*, LXXXIX, 4, 167-180

Searle, J. 1983 *Intentionality*, Cambridge, Cambridge University Press

Sobel, D. & Copp, D. 2001 “Against direction of fit accounts of belief and desires”, *Analysis*, 61.1., 44-53

Steup, M. 2001 ed, *Knowledge, Truth and Duty*, Oxford, Oxford University Press

Velleman, D. 2000 “On the aim of Belief”, in *The Possibility of Practical Reason*, Oxford, Oxford University Press

Walker, T. 1996 “The voluntariness of judgment”, *Inquiry*, 41, 3.97-119

2001 “Truth aimedness and judgement”, *Ratio*, XIV, 1, 68-83

Wedgewood, R. 2002 “The aim of Belief”, *Philosophical Perspectives*, 16, 267-297

Williams, B. 1970 “Deciding to Believe”, in *Problems of the Self*, Cambridge, Cambridge University Press, 1973

2002 *Truth and Truthfulness*, Princeton, Princeton university Press

Winters, B. 1979 “Believing at will”, *The Journal of philosophy*, 76, 243-256

Zangwill, N. “Norms and Mind: direction of fit and normative functionalism”, *Philosophical Studies*, 1998, 91, 173-203