

## On Mizrahi's Argument against Stanford's Instrumentalism

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### ABSTRACT

Mizrahi's argument against Stanford's challenge to scientific realism is analyzed. Mizrahi's argument is worth of attention for at least two reasons: (1) unlike other criticisms that have been made to Stanford's view so far, Mizrahi's argument does not question any specific claim of Stanford's argument, rather it puts into question the very coherence of Stanford's position, because it argues that since Stanford's argument rests on the problem of the unconceived alternatives, Stanford's argument is self-defeating. Thus, if Mizrahi's argument is effective in countering Stanford's view, it may be able to question the validity of other philosophical positions which similarly rest on the problem of the unconceived alternatives; (2) Mizrahi's argument against Stanford's view is in part based on the development of a Stanford-like argument for the field of philosophy. This makes Mizrahi's argument potentially relevant to the metaphilosophical debate. After careful examination, Mizrahi's argument against Stanford's instrumentalism is found wanting. Moreover, a Stanford-like argument is developed, which aims at challenging the metaphilosophical stance implied by Mizrahi's argument against Stanford's instrumentalism.

### KEYWORDS:

Instrumentalism; Kyle Stanford; Metaphilosophy; Moti Mizrahi; Problem of the unconceived alternatives; Problem of the unconceived objections; Scientific realism.

### 1. Introduction.

Many replies have been elaborated in the last decade to address Stanford's (2006) instrumentalist challenge to scientific realism (see, e.g., Magnus 2006, 2010; Saatsi *et al.* 2009; Ruhmkorff 2011; Devitt 2011; see Saatsi *et al.* 2009 for Stanford's rejoinder to some criticisms; see Rowbottom 2016 and Wray 2016 for interesting extensions of Stanford's line of reasoning). Here we will focus on Mizrahi's (2016) attack to Stanford's view.

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Mizrahi's argument against Stanford's view is worth of attention for at least two reasons: (1) unlike other criticisms that have been made to Stanford's view so far, Mizrahi's argument does not question any specific claim of Stanford's argument, but it puts into question the very coherence of Stanford's position in general, because Mizrahi argues that since Stanford's argument rests on the problem of the unconceived alternatives (see below, section 2), Stanford's argument is self-defeating. Thus, if Mizrahi's argument is effective in countering Stanford's view, it may be able to question the validity of other philosophical positions which analogously rest on the problem of the unconceived alternatives, such as, for instance, van Fraassen's criticism of the inference to the best explanation, Sklar's criticism of Bayesian confirmation theories, and Ballantyne's criticism of epistemic optimism in the field of philosophy;<sup>1</sup> (2) Mizrahi's argument against Stanford's view rests, among other things, on the development of a cogent Stanford-like argument for the field of philosophy. This makes Mizrahi's argument potentially relevant to the metaphilosophical debate. Indeed, Mizrahi's Stanford-like argument for philosophy aims at establishing the untenability of the line of reasoning developed by Stanford in the domain of the philosophy of science, by making explicit the unacceptable consequences that one has to draw if one adopts Stanford's line of reasoning in the domain of metaphilosophy. The idea of criticizing a given argument  $d$  for the domain  $D$ , by developing an analogous argument  $f$  for the domain  $F$ , which, if accepted, is able to show that  $d$  cannot hold for  $D$ , is certainly one of the most intriguing and powerful strategy to counter an argument. Obviously,  $f$  has to be cogent in order this strategy to be effective. This article aims precisely at assessing whether or not Mizrahi's strategy to counter Stanford's position is effective. Moreover, Mizrahi's strategy implies a commitment to a precise metaphilosophical position. This article also aims at scrutinizing such metaphilosophical position.

It is worth stressing that (2) can in a sense be regarded as a special case of (1), since among the philosophical positions that rest on the problem of the unconceived alternatives there can well be metaphilosophical ones, so reasons (1) and (2) need not be understood as

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<sup>1</sup> In this paper we will not deal with each of the mentioned positions which rest on the problem of the unconceived alternatives. We will address Ballantyne's criticism of epistemic optimism in section 4. We will briefly illustrate van Fraassen's criticism of the inference to the best explanation and Sklar's criticism of Bayesian confirmation theories in section 2. On the relation between van Fraassen's and Sklar's position and the problem of the unconceived alternatives, see Sterpetti and Bertolaso 2018.

neatly distinguished and unrelated. Nevertheless, we think that metaphilosophical aspects of Mizrahi's argument are so relevant to the debate about the problem of the unconceived alternatives, and present such peculiar features, that they deserve a dedicated treatment.

The article is organized as follows: Stanford's challenge to scientific realism is briefly presented (section 2); then, Mizrahi's argument against Stanford's instrumentalism is analyzed: it is firstly presented in a dilemmatic form (section 3), then both its horns are analyzed in some detail (the first horn in sections 3.1, 3.2, 3.3, and 3.4; the second horn in section 3.5), and finally it is assessed (section 3.6); in the rest of the paper, some metaphilosophical aspects of Mizrahi's argument are considered: firstly, it is developed a Stanford-like argument against the metaphilosophical stance implied by Mizrahi's argument against Stanford's instrumentalism (section 4), and, secondly, such metaphilosophical stance is evaluated independently from whether or not Mizrahi's argument is effective in contrasting Stanford's instrumentalism (section 5); finally, some conclusions are drawn (section 6).

## 2. Stanford's Challenge to Scientific Realism

The peculiarity of Stanford's defense of the instrumentalist attitude towards science, according to which we should refrain to commit ourselves to the existence of the theoretical entities posited by our best scientific theories, is that it shifts the focus of the debate over scientific realism from the *theories* to the *theorists* (Forber 2008; Saatsi *et al.* 2009). While traditional anti-realist arguments are based on the analysis of the historical record of theory change (e.g. Laudan 1981), Stanford's argument relies on the consideration that the historical record of science points out that we humans routinely failed to conceive all the possible alternatives to a given theoretical hypothesis  $h$  at the time it was formulated, and that this prevents us to claim that any current theoretical hypothesis  $h$  is true. Before Stanford's proposal, analogue concerns were made by van Fraassen in his criticism of the inference to the best explanation (van Fraassen 1989), and by Sklar,<sup>2</sup> who considered the

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<sup>2</sup> Stanford (2006) regards Duhem as one of his precursors. Cf. Duhem 1954, p. 189: "Between two contradictory theorems of geometry there is no room for a third judgment; if one is false, the other is necessarily true. Do two hypotheses in physics ever constitute such a strict dilemma? Shall we ever dare to assert that no other hypothesis is imaginable? Light may be a swarm of

role played by the unconceived alternatives, for instance, in the case of the inference to the best explanation and in the case of confirmation theories (Sklar 1981). According to van Fraassen:

We can watch no contest of the theories we have so painfully struggled to formulate, with those no one has proposed. So our selection may well be the best of a bad lot. To believe is at least to consider more likely to be true, than not. So to believe the best explanation requires more than an evaluation of the given hypothesis. It requires a step beyond the comparative judgment that the hypothesis is better than its actual rivals. While the comparative judgment is indeed a ‘weighing (in the light of) the evidence’, the extra step —let us call it the ampliative step— is not. For me to take it that the best of set X will be more likely than not, requires a prior belief that the truth is already more likely to be found in X, than not. (van Fraassen 1989, p. 143).

In a similar vein, Sklar describes the problem of the unconceived alternatives with regard to confirmation theories as follows:

Consider Bayesian strategies for confirmation theory. Here we must distribute a priori probabilities over all the alternative hypotheses to be considered. If there is only a finite set of hypotheses we have in mind, this is easy to do [...]. But if we must keep in mind the infinite and *indeterminate* class of all possible hypotheses, known and unknown, how can we even begin to assign a priori probabilities to those few hypotheses [...] we do have in mind [...]? (Sklar 1981, p. 19).

Stanford’s main idea is that, if we take seriously the eliminative procedure usually advocated by the realists, i.e. the inference to the best explanation, we can safely claim that a given hypothesis *h* is true only after we have considered and discarded all the possible alternatives to *h*. In this view, the ‘possible alternatives’ to *h* comprehend both the

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projectiles, or it may be a vibratory motion whose waves are propagated in a medium; is it forbidden to be anything else at all?” Lyons (2013) traces back this line of reasoning to Mill. Cf. Mill 1900, p. 328: “Most thinkers [...] allow, that an hypothesis [...] is not to be received as probably true because it accounts for all the known phenomena, since this is a condition sometimes fulfilled tolerably well by two conflicting hypotheses [...] while there are probably a thousand more which are equally possible, but which, for want of anything analogous in our experience, our minds are unfitted to conceive.”

conceived and the not yet conceived alternatives to  $h$ . So, in order to claim that  $h$  is true, we need good reason to believe that we have examined all the possible alternatives to  $h$ , and so that there cannot be unconceived alternatives to  $h$ . If, on the contrary, we have reason to believe that  $h$  has unconceived alternatives, we are not justified in believing that  $h$  is probably or approximately true (Lyons 2013). According to Stanford, the history of science gives us good reason to believe that we are unable to exhaustively explore the space of all the possible alternatives to a given hypothesis  $h$ .

Magnus (2010) reconstructs Stanford's argument as follows:

- (1) The historical record reveals that past scientists typically failed to conceive of alternatives to their favorite, then-successful theories.
- (2) So, present scientists fail to conceive of alternatives to their favorite, now successful theories.
- (3) Therefore, we should not believe our present scientific theories insofar as they are the result of eliminative inference.

As already noted, Stanford's argument does not question any specific feature of scientific theories, rather it questions the cognitive capacities of theorists. This is a crucial feature of Stanford's argument, because the "character of scientific theories may have changed over history, making inductions about them suspect, but the cognitive capacities of the theorists that craft them seem more stable" (Forber 2008, p. 137). Indeed, we have no evidence that the human cognitive ability to exhaustively explore the space of all the possible alternatives to a given hypothesis  $h$  increased over time. Because of this peculiarity, Stanford's argument cannot be dismissed as easily as other anti-realist arguments which rest on inductions over the history of scientific theories.

### **3. Mizrahi's Argument against Stanford's View**

Mizrahi (2016) develops an argument against Stanford's Position (SP), according to which, if (1) one assumes that Stanford's argument against scientific realism is a cogent argument, and (2) it is possible to adopt Stanford's own line of reasoning in the field of philosophy, then one finds oneself trapped into a dilemma. Indeed, either (a) SP is a *scientific* position, or (b) SP is not a scientific position, i.e. it is a *philosophical* position. According to Mizrahi,

whichever horn of the dilemma one takes, one should not trust SP in the light of Stanford's own line of reasoning. Let us now analyze the two horns of Mizrahi's dilemma in some detail.

### 3.1. *The First Horn of Mizrahi's Dilemma*

Mizrahi's argument goes something like this: if we take the first horn of the dilemma, (a), i.e. we assume that SP is a scientific position, then we should not trust SP because of SP itself. To put it briefly, in Mizrahi's view, since SP is an anti-realist stance, then because of this very fact it is self-defeating. To see this, consider that Mizrahi takes Stanford's anti-realism (SA) to be described by the following claim:

(SA) Scientific realism is not true, thus scientific theories are not (approximately) true.

Obviously, if SA were a scientific claim, it would be plainly self-defeating; and if SP were reducible to SA, SP would be self-defeating as well. Mizrahi's approach to Stanford's view clearly mirrors the usual rebuttal of what can be called the 'naïve' skeptical challenge.<sup>3</sup> As Fumerton states, if "one concludes that one has no epistemic reason for believing anything at all, then it follows that one has no epistemic reason for believing that one has no epistemic reason for believing anything at all" (Fumerton 1995, p. 50). But, as often the skeptic does not merely claim: 'it is true that we cannot know anything for true',<sup>4</sup> so Stanford's view does not merely reduce to the claim 'scientific theories are not true, and this is a scientific theory'. Even a realist champion as Devitt admits that Stanford is not a sceptic about science in general, because "he is not suggesting that we should 'never trust the deliverances of our scientific investigations'," and so the "difference between him and the realist must remain a bit uncertain. The dispute can sometimes look like one over whether a glass is half empty or half full" (Devitt 2011, p. 291).

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<sup>3</sup> See Klein 2015 for a survey on skepticism.

<sup>4</sup> See Bueno 2015. Cf., e.g., Floridi 1994, p. 46, n. 31: "As Sextus Empiricus well knows, that skepticism is self-defeating is not an argument against scepticism itself, but a further proof that any form of dogmatism is untenable." See also Fumerton 1995, chapter 1.

So, Mizrahi's reconstruction of SA is, to say at least, quite unfair. In fact, Stanford does not claim that anti-realism is true, so scientific realism is not true, and thus scientific theories are not true. Moreover, he never presents his position as a scientific position. Rather, he explicitly advocates for a philosophical position, namely his personal variant of instrumentalism, which is almost universally recognized as a legitimate, albeit disputable, philosophical position. Stanford elaborates an argument *against* scientific realism, which is usually regarded as a *philosophical* position too. This amounts to assume that scientific realism is true, and then showing whether this assumption leads to some unacceptable conclusions. To better illustrate this point, Stanford's argument can be reconstructed as a *reductio* against scientific realism as follows:

- (1) Assume scientific realism (SR) is true. [Assumption for *reductio*]
- (2) If (SR) is true, then scientific theories are true (a) and we are able to know that they are true (b).
- (3) If we know that a theory T is true at time  $t$ , it cannot be the case that T is going to radically change at time  $t+1$  ( $\neg a$ ), nor that we do not know at time  $t$  that T is going to change at time  $t+1$  ( $\neg b$ ). [from (2)]
- (4) So, if in the past scientific theories were true at time  $t$ , they should not have changed at time  $t+1$  in ways that might had been conceived at time  $t$ , but scientists failed to conceive at time  $t$ . [from (3)]
- (5) History of science shows that scientific theories routinely changed at time  $t+1$  ( $\neg a$ ) in ways that might had been conceived by scientists at time  $t$ , but scientists routinely failed to conceive at time  $t$  ( $\neg b$ ). [Premise 1]
- (6) We do not have reasons to claim that cognitive abilities of current scientists changed so that they are now able to conceive all the possible alternatives to a given theory T at time  $t$ , and so that they cannot fail to know whether T is true at time  $t$ , and whether T is going to change at time  $t+1$ . [Premise 2]
- (7) Thus, we should be cautious and refrain to claim that we are able to know whether a scientific theory T is true at time  $t$ . [from (4), (5) and (6) by *modus tollens*]
- (8) If we are unable to know whether a given scientific theory T is true at time  $t$ , SR is not true.
- (9) Thus, SR is not true. [from (7) and (8)]

This presentation of Stanford’s argument as a *reductio* mirrors Mizrahi’s own presentation of part of its argument against Stanford’s view, namely the part where he argues that if one accepts Stanford’s argument against scientific realism, one has to accept Mizrahi’s Stanford-like argument for the field of philosophy as well (more on this below). This presentation of Stanford’s argument clearly shows that Stanford provides a *philosophical* argument to support his *philosophical* position, and that his argument is not blatantly self-defeating. Obviously, premises (1) and (2) may be questioned, and in fact they have been questioned, especially premise (1) (see, e.g., Saatsi *et al.* 2009). But whether or not those premises are true does not impinge on the issue at stake, i.e. whether Stanford’s view is self-defeating.

As regard whether we should understand SA as a philosophical position, or rather SA should be understood as a scientific position, and putting aside for a moment the issue of whether SP can fairly be reduced to SA, it is Mizrahi himself that gives us reason to think that SA is a genuine philosophical position:

the question is whether or not [SA] is a philosophical theory. [...]. For present purposes, it is enough to make three points. First, if normativity is the mark of the philosophical, then [SA] is a philosophical theory, since it is a normative thesis insofar as it tells us what we should (or should not) believe. Second, [SA] is a key tenet of constructive empiricism, according to which, “Science aims to give us theories that are empirically adequate” (van Fraassen 1980, 12), not theories that are approximately true. One would be hard pressed to deny that constructive empiricism is a philosophical theory. Third, if scientific realism, which recommends an attitude of belief in the approximate truth of our best scientific theories, is a philosophical theory, then [SR], which recommends an attitude of non-belief or agnosticism about the approximate truth of our best scientific theories, is a philosophical theory as well. (Mizrahi 2016, p. 65).

Now, one does not need to share Mizrahi’s ideas on why one should believe that SA is a philosophical position to admit that in the context we are dealing with SA can be better understood as a philosophical position rather than a scientific one. For our purposes, since here we are assessing Mizrahi’s argument against Stanford’s view, it suffices to underline that (at least) according to Mizrahi there are (at least) some good reasons to think that SA is a philosophical position (and so that it is not a scientific position). This is by itself quite enough to claim that one can resist the first horn of the dilemma.



Since there is no compelling reason to regard SA as a genuine scientific claim, nor Stanford’s anti-realism needs to be described as Mizrahi describes it, it seems fair to say that Stanford is not really trapped by the first horn of Mizrahi’s dilemma, and can escape it.

### 3.2. *A Possible Objection*

It may be objected that the way in which we reconstructed Stanford’s challenge to scientific realism is incorrect, because Stanford’s argument is more correctly reconstructed as an induction over the history of science than as a *reductio* against scientific realism. Moreover, such a *reductio* contains some inductive steps in it (namely (5) and (6)), so it cannot be really said that Stanford’s way of challenging scientific realism is stronger than traditional inductions over past science.

But this objection is inadequate, because despite the inductive character of some premises in Stanford’s argument, the problem of the unconceived alternatives pointed out by Stanford is able to pose a challenge to scientific realism that does not depend in any relevant sense on its inductive formulation. In this section we sketch the argument that will be spelled out more carefully in the next sections (3.3 and 3.4). As Rowbottom (2016) clearly explains, the point is that it is the realist who claims that scientific theories are (approximately) true. So, it is up to the realist the burden of justifying such claim. The problem of the unconceived alternatives simply points out that in order to safely claim that a given theory T is true, i.e. it is confirmed by evidence (almost) up to certainty, one should be able to justify the claim that there cannot be unconceived alternatives to T.<sup>5</sup> If one does not provide such a justification, the confirmation of T by evidence may at most be regarded as ‘relative’ confirmation, since it may vary if a rival theory T\* will be conceived that it is more confirmed by the same evidence than T. So, one can concede any sort of claims about the weakness of inductive inferences to the realists. Nevertheless, the problem of the unconceived alternatives is still there. The realists still owe a justification of their claim

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<sup>5</sup> Cf. Rowbottom 2016, p. 3: “relative confirmation has no established connection to truth-likeness, even on the assumption that absolute confirmation [...] does indicate truth-likeness [...]. Hence, there are no grounds for thinking that *h* is truth-like unless there are grounds for thinking that there are no serious unconceived alternatives to *h*.”

that a theory T is justified up to such a degree that it can safely be claimed to be true. This means that realists have to give reason for thinking that there cannot be unconceived alternatives to T. And this is not an easy task. Nor the difficulty of this task depends in any relevant sense on the inductive character of the formulation of the problem of the unconceived alternatives.<sup>6</sup> So, the realists cannot avoid the challenge that derives from the problem of the unconceived alternatives by simply questioning the inductive nature of its formulation.

### 3.3. *A Digression on the Problem of the Unconceived Alternatives*

To see more clearly why the problem of the unconceived alternatives is not relevantly dependent on whether one formulates it in an inductive way, consider the main insight that lays behind the problem of the unconceived alternatives, the so-called ‘Mill-Duhem conditional’ (MD) (Lyon 2013):

(MD) If we have reason to believe that T has unconceived alternatives, we are not justified in believing that T is probably or approximately true.

Now, the question we need to address is the following: When do we have reason to believe that T has unconceived alternatives? The peculiarity of the problem of the unconceived alternatives is that one has reason to believe that a given theory T has unconceived alternatives, unless one is able to prove that T has no unconceived alternatives. This case represents an exception to the usual way of dealing with arguments. When one aims to defeat a belief, one needs to provide positive reason to believe that a given

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<sup>6</sup> According to Rowbottom, the significance of the problem of the unconceived alternatives “for the tenability of scientific realism, does not depend on any inductive inference from the past to the present (and future), although Stanford does make such an inference. Rather, it poses a challenge for the realist who claims that contemporary theories are typically approximately true, provided that they are well-confirmed. Why be confident that the confirmation value of any given theory [...] would not change drastically if all the unconceived alternatives were appreciated? What licenses inferring absolute confirmation values from relative confirmation values? If the realist cannot answer satisfactorily, it is reasonable to deny realism” (Rowbottom 2016, p. 3).

proposition may be defeated by a given defeater. If one asserts X, one's opponent need to display reason that X may be defeated by Y, and provide Y. Usually, one cannot demand that the supporter of a given claim X be able to prove that there are (or there cannot be) no defeaters for X. If one provides a defeater Y for X, then the supporter of X is pressed to address this challenge. Unless one is able to provide a defeater Y for X, X cannot be dismissed by claiming that it has not been proved that there are no defeaters for X. Things are different in the case of the unconceived alternatives. This is due to the fact that unconceived alternatives are *unconceived*.<sup>7</sup> This means that it is *in principle* impossible to provide even one such an alternative, which may constitute a defeater for the hypothesis under scrutiny, in a positive way. If it were possible to positively provide an alternative theory T\* to T, T\* would cease to be an unconceived alternative to T. So, either we deny that the problem of the unconceived alternatives is a genuine epistemological problem, because about what has not been yet conceived one cannot speak, and about what one cannot speak one must remain silent; or we have to admit that the we cannot provide reason to believe that T has unconceived alternatives in the same way we provide reason to believe that X may be defeated by Y, i.e. by positively presenting Y as a defeater for X.

It is important to clarify that whether one thinks that the problem of the unconceived alternatives is a genuine epistemological problem, and so that it is a problem worth dealing with, is a distinct issue from whether one has reason to think that there are unconceived alternatives to a given theory T. We cannot deal with the former issue here for reasons of space, nor are we interested here in taking side in such debate. What we wish to claim is just that *if* one regards preoccupation with the epistemic consequences of unconceived alternatives to a given theory T as legitimate, one has to admit that in this case the usual burden of proof needs to be reversed: in order to claim that there are no unconceived alternatives to T, one cannot simply note that no alternative to T has been provided so far, one has instead to positively provide reason for the claim that there are no (or there cannot be) unconceived alternatives to T.

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<sup>7</sup> Cf. Stanford 2006, p. 18: “the tough question, of course, is how to decide whether or not there really are typically unconceived competitors to our best scientific theories [...]. To decide this we will need to know something about the set of hypotheses we *haven't yet considered* [...]. And of course, it is not easy to acquire compelling evidence about the existence of hypotheses that are, *ex hypothesi*, unconceived by us.”

Having clarified this point, we can move one step further in the analysis of why the problem of the unconceived alternatives is not inductive in character. Indeed, providing grounds to the claim that one has reason to believe that T has no unconceived alternatives is impossible for reasons which are not inductively derived. Let's unpack this claim. Providing grounds to the claim that one has reason to believe that T has no unconceived alternatives is impossible because the only way to safely claim that there are no (and there cannot be) unconceived alternatives to T is by proving that T is true. It is easy to see why this is the case. If a given theory T is true, there cannot be alternatives to T that might be equally well accepted. If a theory T is true, it is usually thought that no rival can do better than T. But proving the truth of any theory T is what we usually aim to, so it would be unacceptable to assume that T is true to justify our belief that T has no unconceived alternatives. In the context we are dealing with, things should go the other way around: we should be able to claim that T is true because we can prove to have conceived and dismissed all the possible alternatives to T. So, unless one can know with certainty (and by means other than the eliminative procedure usually advocated by scientific realists) that a given theory T is actually true, it is theoretically impossible to claim with certainty that T has no unconceived alternatives.

Thus, since if one is not able to give reason to believe that T has no unconceived alternatives, one cannot avoid claiming that one has reason to believe that T has unconceived alternatives, and since if one has reason to believe that T has unconceived alternatives, one is not justified in believing that T is probably or approximately true (MD), one should refrain to believe that T is probably or approximately true.

The previous argumentation can be summarized as follows:

- (i) If we have reason to believe that T has unconceived alternatives, we are not justified in believing that T is probably or approximately true. [MD]
- (ii) We have reason to believe that T has unconceived alternatives, unless we are able to prove that T has no unconceived alternatives. [Premise 1]
- (iii) Providing reason to believe that T has no unconceived alternatives is impossible. [Premise 2]
- (iv) So, we have reason to believe that T has unconceived alternatives. [From (ii) and (iii)]
- (v) Thus, we should refrain to believe that T is probably or approximately true. [from (i) and (iv) by *modus ponens*]

This formulation of the problem of the unconceived alternatives is not inductive in character. Historical considerations and inductions over the historical record of scientific theories and theorists' performances are interesting and can well be relevant to support arguments for and against the problem of the unconceived alternatives. Nevertheless, we argue that they are not indispensable.

#### 3.4. *A Reformulation of the Reductio against Scientific Realism*

Let us now consider more closely the issue of why we believe that we are unable to claim that there cannot be unconceived alternatives to a given hypothesis  $h$ . The answer to such question has to do with the contingent nature of the conceived hypotheses. And such contingency is thought to be due to our finiteness. This point can be regarded as a theoretical explanation of the claim made by Stanford about the inability of past and current scientists to conceive all the possible alternatives to their favorite theories (Sterpetti and Bertolaso 2018). Indeed, the space of possible alternatives to a given hypothesis  $h$  may be infinite. If this is the case, in order to consider all possible alternatives to  $h$  and discard them, we should be able to deal with actual infinities. But it is usually thought that we are unable to deal with actual infinities, precisely because we are finite creatures. But the space of possible alternatives to  $h$  may even not be infinite. In this case we could be able to exhaustively explore it. The issue is now how to assess whether we have exhaustively explored the space of possible alternatives to  $h$ . In order to claim with certainty that we have exhaustively explored the space of possible alternatives to  $h$  we should know in advance with certainty that such space is not infinite. How could we justify the claim that we know how the space of possible alternatives to  $h$  is shaped? Usually, either we do not know how this space is shaped in advance, or we cannot know whether our belief about how this space is shaped is actually true. If we admit the possibility that we can be wrong about how the space of possible alternatives to  $h$  is shaped, and that we cannot exclude with certainty that there can be infinite alternatives to  $h$ , the problem of the unconceived alternatives cannot be easily dismissed, since we cannot safely claim to be able to exhaust the space of all the possible alternatives to any given hypothesis  $h$ .

If we combine Stanford's shift to the theorists with the explanation just suggested for their inability to conceive all the possible alternatives to any given theory T, we can amend the *reductio* against scientific realism presented above (section 3.1).

Consider new premise (6\*):

- (6\*) (5) and (6) are observed patterns that can be theoretically explained as follows: we have reason to believe that T has unconceived alternatives, unless we are able to prove that T has no unconceived alternatives. Since providing reason to believe that T has no unconceived alternatives is impossible, we are not able to know whether T is true at time  $t$ , and whether T is going to change at time  $t+1$ .

If we insert premise (6\*) after premise (6) in the *reductio* against scientific realism presented above, the argument becomes as follows:

- (1) Assume scientific realism (SR) is true. [Assumption for *reductio*]
- (2) If (SR) is true, then scientific theories are true (a) and we are able to know that they are true (b).
- (3) If we know that a theory T is true at time  $t$ , it cannot be the case that T is going to radically change at time  $t+1$  ( $\neg$ a), nor that we do not know at time  $t$  that T is going to change at time  $t+1$  ( $\neg$ b). [from (2)]
- (4) So, if in the past scientific theories were true at time  $t$ , they should not have changed at time  $t+1$  in ways that might had been conceived at time  $t$ , but scientists failed to conceive at time  $t$ . [from (3)]
- (5) History of science shows that scientific theories routinely changed at time  $t+1$  ( $\neg$ a) in ways that might had been conceived by scientists at time  $t$ , but scientists routinely failed to conceive at time  $t$  ( $\neg$ b). [Premise 1]
- (6) We do not have reasons to claim that cognitive abilities of current scientists changed so that they are now able to conceive all the possible alternatives to a given theory T at time  $t$ , and so that they cannot fail to know whether T is true at time  $t$ , and whether T is going to change at time  $t+1$ . [Premise 2]
- (6\*) (5) and (6) are observed patterns that can be theoretically explained as follows: we have reason to believe that T has unconceived alternatives, unless we are able to prove that T has no unconceived alternatives. Since providing reason to believe

that T has no unconceived alternatives is impossible, we are not able to know whether T is true at time  $t$ , and whether T is going to change at time  $t+1$ . [Premise 3]

- (7) Thus, we should be cautious and refrain to claim that we are able to know whether a scientific theory T is true at time  $t$ . [from (4), (5), (6) and (6\*)]
- (8) If we are unable to know whether a given scientific theory T is true at time  $t$ , SR is not true.
- (9) Thus, SR is not true. [from (7) and (8)]

This new *reductio* is still ‘historically and empirically informed’ (Lyons 2013), because of (4) and (5), but, since it now displays premise (6\*), which can explain both (4) and (5) and it is non-inductive in character, this new *reductio* is stronger than the previous one. Observations made in (4) and (5) can indeed be regarded as instances of the pattern described in (6\*), which is not inductively derived. Premises (4) and (5) may still be useful to persuade one’s opponent that there are evidences that the problem of the unconceived alternatives is (and has been) a genuine epistemological concern, but the whole argument is not crucially dependent on such inductive steps. So, criticisms based on the weakness of inductive inferences can be avoided by Stanford.<sup>8</sup>

### 3.5. *The Second Horn of Mizrahi’s Dilemma*

If we take the second horn of Mizrahi’s dilemma, (b), i.e. we assume that SP is a philosophical position (see above, section 3), then according to Mizrahi, Stanford’s view is self-debunking. Mizrahi can draw this conclusion because in his view it is possible to develop an argument which is analogous to Stanford’s argument against scientific realism (and so it is not easily refutable by those who accept Stanford’s argument against scientific realism), according to which we should not believe our current philosophical theories,

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<sup>8</sup> For a different attempt to present the challenge to scientific realism which derives from the problem of the unconceived alternatives in a deductive form, see Lyons 2013.

because philosophers routinely failed to conceive of serious objections<sup>9</sup> to their theories.<sup>10</sup> This is what Mizrahi calls ‘the problem of the unconceived objections’ (Mizrahi 2014). So, if SP is a philosophical position, then we should not trust it, exactly because it is a philosophical position.

Mizrahi’s Stanford-like argument for philosophy (MA) can be reconstructed as follows:

- (1) The historical record reveals that past philosophers typically failed to conceive of serious objections to their favorite, then-defensible theories.
- (2) So, present philosophers fail to conceive of serious objections to their favorite, now-defensible theories.
- (3) Therefore, we should not believe our present philosophical theories.

By developing MA, Mizrahi (quite unfairly) tries to equate Stanford’s scientific anti-realism, which is a sophisticated and well developed philosophical position, according to which we should refrain to commit ourselves to the existence of theoretical entities posited by our best scientific theories, with a not well developed metaphilosophical position,

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<sup>9</sup> As regard how ‘serious’ has to be understood in order to determine whether or not a given objection to a given hypothesis is serious, Mizrahi (2014) does not give us a criterion, rather he gives us a list of examples of serious objections to philosophical theories that were unconceived at the time those theories were firstly presented, but that philosophers have subsequently elaborated and regarded as ‘serious’. Mizrahi (2016) gives another list of examples. We can fairly say that in this view it is the philosophical community that judges over the seriousness of a given objection to a given theory. Mizrahi’s lists are drawn from the history of philosophy, in analogy with Laudan’s list, which was drawn from the history of science. Cf. e.g. Mizrahi 2014, p. 428: “In his seminal paper ‘On Denoting’ (1905), and later in his *Introduction to Mathematical Philosophy* (1919), Russell articulates and defends his description theory of proper names. The theory now faces what are considered by many philosophers to be serious objections, which were put forth by Kripke (1980) among others.” Here we are dealing with Mizrahi’s view, so we will not deal with the issue of whether a more satisfactory criterion of ‘seriousness’ can be given.

<sup>10</sup> Mizrahi (2014) explains that in developing a Stanford-like argument for philosophy he preferred to consider ‘objections’ rather than ‘alternatives’, because, despite he does not subscribe to such a view, many philosophers assume that defending a claim amounts to support that claim, and that supporting a claim amounts to anticipate and defeat possible objections to that claim.



labeled ‘philosophical anti-realism’, according to which philosophical theories are not true, *simpliciter*.

So, Mizrahi’s argument against Stanford’s instrumentalism goes, if one supports scientific anti-realism, because one thinks that Stanford’s argument is a cogent argument against scientific realism, given that MA is analogous to Stanford’s argument against scientific realism, one should support ‘philosophical anti-realism’ either. Thus, if SP is a philosophical position, we should not trust it because of MA, i.e. because in the light of MA we should not trust any philosophical theory whatsoever. In this view, Stanford’s approach would be self-debunking.

The second horn of Mizrahi’s dilemma is structured in such a way that the more one deems Stanford’s argument against scientific realism to be a cogent argument, the more one cannot avoid deeming MA to be a cogent argument as well, and thus one cannot avoid concluding that SP is a self-debunking position. The problem is that Mizrahi’s argument against Stanford’s instrumentalism crucially relies on MA. Now, it is MA which is a blatantly self-defeating argument, as in the case of the naïve skeptical challenge mentioned above. Indeed, if one maintains MA, one is clearly advocating for a philosophical position, i.e. one is committing oneself to a given philosophical theory, namely the philosophical theory according to which we should not believe philosophical theories. But according to MA itself, we should not trust philosophical theories. So, MA is self-defeating.

If we consider now Mizrahi’s argument against Stanford’s instrumentalism, it is easy to see that also this argument falls victim of MA being self-defeating. Indeed, Mizrahi’s argument against Stanford’s instrumentalism conveys in its turn a philosophical position, which implies a commitment to a given philosophical theory, namely the philosophical theory according to which instrumentalism is untenable and scientific realism prevails. But according to MA, we should not trust philosophical theories. Thus, since Mizrahi’s argument against Stanford’s view crucially rests on MA, if (1) one takes MA to be a cogent argument, then one should not trust Mizrahi’s argument against Stanford’s instrumentalism, because Mizrahi’s argument against Stanford’s instrumentalism is a philosophical theory, and according to MA we should not trust any philosophical theory; if (2) one takes MA to be a self-defeating argument, i.e. a non-cogent argument, then Mizrahi’s argument against Stanford’s instrumentalism cannot even take off the ground, since it rests on a self-defeating argument. Thus, it seems fair to say that Stanford is not trapped by the second horn of Mizrahi’s dilemma, and can escape it.

It may be questioned whether MA can be regarded as a genuine philosophical position which implies a commitment to a given philosophical theory.<sup>11</sup> In one of his papers, Mizrahi states that the “question of what makes a theory a philosophical theory is not an easy one to answer and it is surely beyond the scope of this paper” (Mizrahi 2016, p. 65). Such a question is certainly beyond the scope of *this paper* too. For the purpose of this paper, we can content ourselves with pointing out that MA is a philosophical position at least according to Mizrahi’s own standards to determine whether a given philosophical claim C can be regarded as expressing a genuine philosophical position P, and whether if one adopts a given philosophical position P one is committed to a given philosophical theory T.

Recall that according to Mizrahi, SP, i.e. the philosophical position advocated by Stanford, can be reduced to SA, i.e. the claim which expresses Stanford’s (presumed) anti-realism in the following way: “Scientific realism is not true, thus scientific theories are not (approximately) true”. By the same standards we can describe MA as follows: “We fail to conceive of objections to our philosophical theories, so we should not believe our philosophical theories”. As reported above (section 3.1), according to Mizrahi SA is a genuine philosophical position. Along the same line of reasoning, MA can be regarded as a genuine philosophical position as well. Indeed, by sticking to Mizrahi’s description of the reasons why we should think that SA is a genuine philosophical position, we can make three points. First, if normativity is the mark of the philosophical, then MA is a philosophical theory, since it is a normative thesis insofar as it tells us what we should not believe. Second, MA is a key tenet of skepticism about philosophy, according to which, widespread “disagreement shows that pursuing philosophy is not a reliable method of discovering true answers to philosophical questions” (Brennan 2010, p. 1). One would be hard pressed to deny that skepticism about philosophy is a philosophical theory. Third, if philosophical realism (more on this below), which recommends an attitude of belief in the approximate truth of our philosophical theories, is a philosophical theory, then MA which recommends an attitude of non-belief or agnosticism about the approximate truth of our philosophical theories, is a philosophical theory as well.

Please, note that it cannot be objected that philosophical realism is not really a philosophical theory, and that we ourselves make precisely such claim in *this paper* (see

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<sup>11</sup> We wish to thank an anonymous reviewer for urging us to clarify this point.

below, sections 4 and 5). Here we are just claiming that *if* according to Mizrahi philosophical realism is a genuine philosophical theory, and one shares Mizrahi's view, then one cannot deny that MA is a genuine philosophical position which commits those who adopt it to a genuine philosophical theory.

### 3.6. *Assessing Mizrahi's Argument*

To sum up, Mizrahi's argument against Stanford's instrumentalism can be thought as constructed in such a way to force Stanford into a dilemma, whose horns should both be able to show that Stanford's argument is self-defeating. But in fact, neither of its horns are really inescapable for Stanford. Indeed, (1) the first horn of Mizrahi's dilemma misrepresents Stanford's main claim to let it appear as a self-defeating claim, but Stanford's main claim need not be represented in such a way; and (2) the second horn of Mizrahi's dilemma crucially rests on MA in order to show that Stanford's argument is self-defeating, but it is MA itself that is a self-defeating argument, so MA is not really able to support the charge that Stanford's argument is self-defeating.

## 4. **A Stanford-Like Argument against Mizrahi's 'Philosophical Realism'**

As we have seen, Mizrahi develops MA, i.e. a Stanford-like argument for the field of philosophy, in order to show that if one adopts Stanford's line of reasoning in the metaphilosophical context, one has to support what he calls 'philosophical anti-realism'. Given that Mizrahi deems 'philosophical anti-realism' to be an implausible metaphilosophical stance because of the unpalatable consequences that one has to draw if one adopts such metaphilosophical stance, we can fairly infer that he subscribes to 'philosophical realism'. 'Philosophical realism' is the metaphilosophical position that can be defined as the position which stands opposed to 'philosophical anti-realism' as defined by Mizrahi.

In this section, we aim to show that when one exploits Stanford's line of reasoning in the field of (meta)philosophy, one risks being exposed to the very same argumentative strategy. Another Stanford-like argument can indeed be developed in order to show the untenability of Mizrahi's 'philosophical realism' and the implausibility of its formulation.

‘Philosophical realism’ as defined by Mizrahi is prone to a Stanford-like argument which can be described as follows:

- (1) Assume philosophical realism (PR) is true. [Assumption for *reductio*]
- (2) If (PR) is true, then philosophical theories are true (a) and we are able to know that they are true (b).
- (3) If we know that a philosophical theory T is true at time  $t$ , it cannot be the case that T is going to radically change at time  $t+1$  ( $\neg a$ ), nor that we do not know at time  $t$  that T is going to change at time  $t+1$  ( $\neg b$ ). [from (2)]
- (4) So, if in the past philosophical theories were true at time  $t$ , they should not have changed at time  $t+1$  in ways that might had been conceived at time  $t$ , but philosophers failed to conceive at time  $t$ . [from (3)]
- (5) History of philosophy shows that philosophical theories routinely changed at time  $t+1$  ( $\neg a$ ) in ways that might had been conceived by philosophers at time  $t$ , but philosophers routinely failed to conceive at time  $t$  ( $\neg b$ ). [Premise 1]
- (6) We do not have reasons to claim that cognitive abilities of current philosophers changed so that they are now able to conceive all possible serious objections to a given philosophical theory T at time  $t$ , and so that they cannot fail to know whether T is true at time  $t$ , and whether T is going to change at time  $t+1$ . [Premise 2]
- (7) (5) and (6) are observed patterns that can be theoretically explained as follows: we have reason to believe that T has unconceived serious objections, unless we are able to prove that T has no unconceived serious objections. Since providing reason to believe that T has no unconceived serious objections is impossible, we are not able to know whether T is true at time  $t$ , and whether T is going to change at time  $t+1$ . [Premise 3]
- (8) Thus, we should be cautious and refrain to claim that we are able to know whether a philosophical theory T is true at time  $t$ . [from (4), (5), (6) and (7)]
- (9) If we are unable to know whether a given philosophical theory is true at time  $t$ , PR is not true.
- (10) Thus, PR is not true. [from (8) and (9)]

This argument is not blatantly self-defeating in the same way in which MA is self-defeating, since it is a valid *reductio* against ‘philosophical realism’, nor is it in any relevant sense dependent on any inductive step, for the same reasons why the new *reductio* against scientific realism that we illustrated above (section 3.4) is not relevantly dependent on any inductive step.

This argument does not naïvely claim that ‘philosophical anti-realism is true’. Nor can this kind of argument be used to defeat Stanford’s argument against scientific realism, because, as already noted, Stanford’s argument against scientific realism does not naïvely claim that ‘scientific anti-realism is true’. Rather, Stanford’s argument can be regarded as a valid *reductio* against scientific realism. Both this Stanford-like argument against ‘philosophical realism’ and Stanford’s argument against scientific realism are better understood as arguments which aim at putting pressure on the realists to better argue for their position. Those arguments are not self-defeating arguments, they are arguments that merely point out that if one supports realism, then one should be able to face the objection conveyed by those arguments.<sup>12</sup>

It may be objected that if one fails to conceive of relevant objections to one’s favorite philosophical theory, this does not amount by itself to prove that such philosophical theory should be rejected.<sup>13</sup> In other words, the question is the following: Does the fact that

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<sup>12</sup> The anti-realist attitude is in some sense analogous to the skeptical one, at least to the extent that it is motivated by the aim of contrasting what the anti-realist perceives as a form of unjustified optimism. Cf. Fumerton 1995, p. 53: “the philosopher is interested in and wants a kind of justification that ordinary people do not even think about in their day-to-day lives. The philosophical skeptic may best be construed as telling the philosopher that this kind of justification is unavailable. In every other walk of life people must get used to the idea that they cannot have everything they want, and the skeptic might maintain that it is a kind of perverted optimism to suppose that the kind of justification that would satisfy the kind of curiosity that afflicts the epistemologist is there to be found.” Cf. also Bueno 2015, p. 161: “A critical mode of engagement [...] is central to anti-realism since this stance is typically adopted as a reaction to what is perceived as the excesses of realist alternatives. [...]. Precisely this sort of critical engagement is similarly crucial to Pyrrhonism, which also emerges in response to the excesses of dogmatic philosophies in their attempt at establishing the truth [...] about the relevant domains.”

<sup>13</sup> We wish to thank an anonymous reviewer for pressing us to clarify this point.

someone presents a defeater for a given belief constitute a sufficient reason to dismiss such belief? In the field of metaphilosophy this may be the case. In order to avoid any misunderstanding, it is worth stressing that our intention is not to deny that a defeater may well be defeated in its turn, and so that if someone furnishes us with a defeater for a given belief this is not by itself a sufficient reason to dismiss such belief. What we rather wish to point out is that if someone can provide a serious defeater for a given philosophical hypothesis, then it is very likely that such hypothesis needs at least to be fixed or at worst to be replaced by a better one. The idea behind this thought is that were a philosophical theory true, it should be impossible to provide any serious objection to it. On the contrary, if a serious objection is provided, this gives us reason to suspect that our philosophical theory needs to be fixed.

To see this point more clearly, consider the so-called Problem of Counterfactual Philosophers (CP) developed by Ballantyne (2014), which can be described as follows:

(CP) If a group of methodologically-friendly counterfactual philosophers (i.e. philosophers who could have been working among us but are not, and who would incline to appeal to types of reasons, evidence, and inferences that one oneself would take as legitimate if one were to consider them) had scrutinized one's best arguments for some proposition  $p$  and then shared their thoughts, one very likely would have defeaters for believing  $p$ .<sup>14</sup>

Many are inclined to accept such a defeating epistemic counterfactual (i.e. a counterfactual which is able to defeat one's belief by adumbrating in its consequent a contrary-to-fact state that, were the antecedent to obtain, very likely would furnish a thinker with a defeater for such belief), since they believe to be highly fallible in their doing philosophy. On the contrary, one may easily find (CP) unconvincing if one thinks that there are undefeatable arguments in philosophy. Obviously, those who reject (CP) should

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<sup>14</sup> Even if we cannot develop here this point for reasons of space, we wish to mention that, following Elga 2007, one could include among counterfactual philosophers also one's past and future selves.

provide cogent evidence that undefeatable (i.e. true) philosophical hypotheses exist, and this is not an easy task.<sup>15</sup>

CP can be regarded as an instance of the problem of the unconceived alternatives. Indeed, the reason why we think that counterfactual philosophers would very likely furnish us with a defeater for any given argument we might have developed is that we regard our ability to explore the space of possible objections to any given argument as severely limited. Moreover, we regard the trajectory that our thoughts and arguments had taken in the development of such argument as highly contingent. Such contingency is precisely due to our limitation in exploring all cases possible. So, (CP) displays the same features that the problem of the unconceived alternatives displays. Our limited ability in considering objections to a given hypothesis and the contingent path that we followed to elaborate a given philosophical argument ground the claim that it is likely that we gone astray in our reasoning, and that we are unable to detect how far from sound reasoning we have gone. Since the space of all possible alternatives to a given hypothesis is regarded as quite vast; and given that the contingent trajectories that anyone follows in developing arguments can be extremely divergent; and since it is likely that we gone astray, it seems fair to conclude that it is likely that by exploring other sectors of the space of possible alternatives to a given hypothesis, counterfactual philosophers can conceive of defeaters that we instead failed to conceive of. Since it is very unlikely that we have gone right, one can conclude that it is very likely that if one finds a defeater for a philosophical hypothesis, this defeater will be such that we will be pressed to change our hypothesis.

## **5. What If One Accepts Mizrahi's Argument?**

Let us take stock of Mizrahi's metaphilosophical commitment for a moment. Put aside the issue of whether or not Mizrahi's argument against Stanford's instrumentalism is effective. Assume, for argument's sake, that Mizrahi's argument against Stanford's instrumentalism is effective and that you find it quite convincing. Now, the question is: If one accepts Mizrahi's argument, what metaphilosophical stance one finds oneself committed to? We think that if one reflects on this issue, one will be less content with Mizrahi's argument.

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<sup>15</sup> On the difficulty of proving that undefeatable arguments exist, see Keller 2015.

First of all, it is worth stressing that ‘philosophical realism’ and ‘philosophical anti-realism’ as described by Mizrahi do not correspond to any actual metaphilosophical stance advocated by any actual philosopher (at least to the best of our knowledge). Mizrahi does not even try to characterize ‘philosophical realism’ and ‘philosophical anti-realism’ adequately. The theoretical underdevelopment of those metaphilosophical stances clearly emerges if one inspects Mizrahi’s description of them more closely. And such theoretical underdevelopment weakens Mizrahi’s argument insofar as it points out the speciousness of some of its assumptions. Consider, for instance, that Mizrahi describes ‘philosophical anti-realism’ as the claim that we should not trust philosophical theories and take them for true. So, we can fairly infer that in his view ‘philosophical realism’ is the claim that we should trust philosophical theories and take them for true. But philosophers usually do not take philosophical theories to be confirmable or true in the same way in which scientific theories can be confirmed and claimed to be true. Here, it will suffice to recall the often-quoted passage by Lewis:

Philosophical theories are never refuted conclusively. [...]. It might be otherwise if [...] we had a sharp line between ‘linguistic intuition’, which must be taken as unchallengeable evidence, and philosophical theory, which must at all costs fit this evidence. [...]. But, whatever may be said for foundationalism in other subjects, this foundationalist theory of philosophical knowledge seems ill-founded in the extreme. Our ‘intuitions’ are simply opinions; our philosophical theories are the same. (Lewis 1983, p. ix).

Nothing could be more distant from how scientific theories are usually understood by scientific realists than this way of conceiving of philosophical theories. And in fact, many scientific realists do not see scientific theories and philosophical theories on a par with respect to their relation to the truth. This is particularly evident if one compares science and philosophy with respect to (i) progress and (ii) consensus. Indeed, in order to maintain a realist attitude towards philosophical theories analogous to the attitude many philosophers maintain towards scientific theories, one should at least have some evidences that there is a shared consensus among philosophers on what philosophical results can be regarded as established, and on the criteria through which rival philosophical theories can be evaluated.

As regard (i), i.e. progress, scientific realists usually claim that science is progressive, and that progress is (in some way or another) related to the aim of science, which is the pursue of truth (or some cognate concepts) (Niiniluoto 2015). On the contrary, it is widely



held that philosophy does not experience progress (Mironov 2013),<sup>16</sup> or, if some progress is acknowledged to occur, that it is not comparable with the progress that science experiences (Chalmers 2015).

As regard (ii), i.e. consensus, science can be said to be progressive precisely because the scientific community experiences a wide consensus at least on some central methodological issues, and so on whether or not some results can be regarded as established. Nothing similar can instead be found in the philosophical community (Mironov 2013; Chalmers 2015). Philosophers' permanent disagreement is a mark of the fact that they do not 'converge to the truth' when they debate over philosophical theories (Chalmers 2015).<sup>17</sup> And this is even considered by some authors to be a characterizing feature of philosophy which sharply distinguishes it from science (see, e.g., Cavallo 2014; Priest 2006).<sup>18</sup> Thus, one may reasonably expect that 'philosophical anti-realism', defined as the thesis that philosophical theories should not be regarded as true or false in the same way we regard scientific theories as true or false, should be presented as a widespread and respectable view in the metaphilosophical domain. And indeed, many respectable philosophers do submit to some form of 'philosophical skepticism',<sup>19</sup> i.e. skepticism about philosophy (see e.g. Beebee 2018; Daly 2017; Frances 2016). For instance, Beebee claims that a "surprisingly large number of philosophers have recently endorsed—or at least come pretty close to endorsing—philosophical scepticism" (Beebee 2018, p. 1). One may also reasonably expect that this kind of 'philosophical anti-realism' should be presented as a view that is shared by many supporters of scientific realism. Contrary to those expectations,

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<sup>16</sup> Cf. Mironov 2013, p. 13: "Philosophy cannot [...] be a system of generally accepted knowledge, and in this sense no progress in philosophy is possible [...]. But this fact gives philosophy an entirely different impetus for development: as a permanent struggle of contrary conceptions."

<sup>17</sup> Cf. Chalmers 2015, p. 18: "philosophical arguments typically lead not to agreement but to sophisticated disagreement."

<sup>18</sup> Cf. Priest 2006, p. 189: "the nature of philosophy [...] is still very much an open question. One of the reasons this is so is that the nature of philosophy is itself a *philosophical* question, so uncontentious answers are not to be expected—if philosophers ever ceased disagreeing with one another our profession would be done for."

<sup>19</sup> Cf. Beebee 2018, p. 1: "Philosophical scepticism [...] is scepticism *about* philosophy: the claim is that philosophers do not, and cannot, know many of the substantive philosophical claims that they make or implicitly assume."

Mizrahi sketches ‘philosophical anti-realism’ in dismissive terms as an openly untenable metaphilosophical stance.

The only reason one can envisage why Mizrahi delineates ‘philosophical anti-realism’ as such an untenable stance is that he sees it just as a part of the argumentative strategy that he develops against Stanford’s instrumentalism. In this perspective, ‘philosophical realism’ is the metaphilosophical counterpart of scientific realism. To counter Stanford’s challenge, Mizrahi establishes a connection between ‘philosophical anti-realism’ and scientific anti-realism, and then he tries to show that ‘philosophical anti-realism’ leads to the defeat of scientific anti-realism. Recall that Mizrahi’s argument is structured in such a way that if one regards Stanford’s argument against scientific realism as a cogent argument, one cannot avoid regarding MA as a cogent argument as well. And according to Mizrahi, if one accepts MA, one embraces ‘philosophical anti-realism’. And this, the argument goes, leads to the defeat of Stanford’s anti-realist view. So, if one regards Mizrahi’s argument against Stanford’s view as a cogent argument, one cannot avoid committing oneself to ‘philosophical realism’. In other words, if in order to defend scientific realism from Stanford’s challenge, one follows Mizrahi’s strategy, one risks finding oneself lost in an inhospitable metaphilosophical land. Mizrahi seems not to take care of this. He is (legitimately) mainly devoted to defeat Stanford’s challenge in the field of the philosophy of science. But the strategy that Mizrahi elaborates to reach that result crucially involves the crossing of the metaphilosophical field. So, even granting that Mizrahi’s strategy is able to reach its goal, the cost for the scientific realist may be too high. Indeed, the price one has to pay if one wishes to follow Mizrahi’s strategy is that one has to embrace ‘philosophical realism’.

Now, if one embraces ‘philosophical realism’, one has immediately to face several insurmountable metaphilosophical difficulties. And this fact indicates that something may have gone wrong in the way Mizrahi elaborated his defense of scientific realism. More precisely, the equivalence that Mizrahi tries to establish between the role that Stanford’s argumentative strategy plays in the philosophy of science and the role that MA is supposed to play in the metaphilosophical context seems not firmly grounded. While the debate over scientific realism is centered on the notion of truth (or some cognate concept) and deals with the issue of whether scientific theories are (approximately) true, in the metaphilosophical domain it is not possible to construe the confrontation between what can be labeled a ‘realist’ stance and what can be labeled an ‘anti-realist’ stance, as revolving around the issue of whether or not philosophical theories are true. Thus, while Stanford’s

argument, despite being disputable, seems adequate to the philosophical domain it was meant to deal with, Mizrahi's argument seems inadequate to the metaphilosophical domain that it needed to deal with in order to pursue its main goal. In other words, while raising the issue of the unconceived alternatives in the debate over scientific realism seems an adequate move, because if there are unconceived alternatives to a given theory, the realist's key commitment to the truth of that theory may be in trouble; raising the issue of the unconceived alternatives in the metaphilosophical domain to claim that it leads to an untenable position seems a less adequate move, because that for any given philosophical theory there may be serious objections that remain hitherto unconceived is precisely what philosophers (except perhaps for a few) expect that is the case.<sup>20</sup> And this is so because the great majority of philosophers does not think that philosophical theories are true in the same sense in which scientific theories are true.

On the contrary, if we follow Mizrahi and conceive of philosophical theories in terms of truth in the same way in which we conceive of scientific theories in terms of truth, several problems arise. For instance: What philosophical theories in the history of philosophy should we regard as 'true' according to Mizrahi's construal of 'philosophical realism'? As regard 'philosophical anti-realism', Mizrahi just states that the sort of anti-realism he has in mind "is parallel to the sort of anti-realism that is opposed to scientific realism along the epistemological dimension [...]. In that respect, this sort of anti-realism amounts to agnosticism about theoretical knowledge" (Mizrahi 2014, p. 4, fn. 2). Does this imply that instead according to Mizrahi's 'philosophical realism' every philosophical theory is an instance of 'theoretical knowledge'? If the answer to this question is in the positive, and 'knowledge' is understood, as usual, as 'justified true belief (*plus* some anti-luck condition)', this implies that according to Mizrahi every philosophical theory is 'true' in a realist sense of truth. But how can a philosopher gain this kind of knowledge? How can one discriminate between true and false philosophical hypotheses? On the basis of some philosophical theory already known to be true? And, if one doubts the view according to which philosophical theories are instances of 'theoretical knowledge', should one be regarded as an 'anti-realist' in Mizrahi's terms, i.e. as almost a weird skeptic?

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<sup>20</sup> Cf., e.g., Priest 2006, p. 207: "I have criticised some views about the nature of philosophy, and have developed a rival view, which is not subject to the same objections. I have no doubt that philosophers who are interested in the matter are likely to want to challenge the view and raise other objections. But that – if I am right – is exactly what you should expect."

The difficulties that immediately arise if one analyzes more closely ‘philosophical realism’ and ‘philosophical anti-realism’ as defined by Mizrahi, suggest that Mizrahi’s move of extending Stanford’s argument to the philosophical field is more a rhetoric (albeit intriguing) strategy to discredit Stanford’s instrumentalism, than a cogent counter-argument based on substantial metaphilosophical reasons to doubt Stanford’s argument.

## 6. Conclusion

In this article, we presented Mizrahi’s argument against Stanford’s challenge to scientific realism. Mizrahi’s argument is worth of attention for at least two reasons: (1) if Mizrahi’s argument is effective in countering Stanford’s view, it may be able to question the validity of other philosophical positions which similarly rest on the problem of the unconceived alternatives; (2) since Mizrahi’s argument against Stanford’s view is in part based on the development of a Stanford-like argument for the field of philosophy, Mizrahi’s argument may be relevant to the metaphilosophical debate. After careful examination, we found Mizrahi’s argument against Stanford’s instrumentalism wanting. Moreover, we showed that Mizrahi’s Stanford-like argument for the field of philosophy, i.e. MA, is self-defeating. In order to contrast the metaphilosophical position implied by Mizrahi’s argument, i.e. ‘philosophical realism’, we developed another Stanford-like argument, which aims at showing the untenability of such metaphilosophical stance. Finally, we pointed out that ‘philosophical realism’ is not adequately developed and defended by Mizrahi and it is, in its actual formulation, highly disputable.

It seems fair to conclude that: (i) since Mizrahi’s argument is not effective in countering Stanford’s philosophical position, Mizrahi’s argument is not able to question the validity of those other philosophical positions which similarly rest on the problem of the unconceived alternatives (such as, for instance, van Fraassen’s criticism of the inference to the best explanation; Sklar’s criticism of Bayesian confirmation theories; Ballantyne’s criticism of epistemic optimism in the field of philosophy); (ii) Mizrahi’s argument is not really relevant to the metaphilosophical debate, because, since it does not succeed in supporting scientific realism by showing that Stanford’s scientific anti-realism is self-defeating, it is not even able to provide support to the metaphilosophical stance that it implies, i.e. ‘philosophical realism’, by showing that the rival metaphilosophical stance, i.e. ‘philosophical anti-realism’, leads to untenable conclusions; (iii) even if Mizrahi’s

argument were effective in supporting scientific realism, it may be unattractive for many scientific realists, because of the metaphilosophical stance that it implies. In view of the epistemic price that one has to pay to adopt Mizrahi's argument, many realists may prefer to search for a different strategy to contrast Stanford's challenge to scientific realism.

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