

ETICA & POLITICA / ETHICS & POLITICS

XIX, 2017, 2

www.units.it/etica



**Edizioni
Università
di Trieste**

ISSN 1825-5167

Etica & Politica / Ethics & Politics, XVIII, 2017, 2

M o n o g r a p h i c a I
REALISM AND OBJECTIVITY IN ETHICS

7	Massimo Reichlin	<i>Moral Realism and Moral Objectivity. Guest Editor's Preface</i>
11	Sergio Filippo Magni	<i>Objectivity and Moral Relativism</i>
25	Gabriele De Anna	<i>Human Action and Moral Realism</i>
39	Sarah Songhorian	<i>Why Should I Be Moral? The Impact of Objectivism or Non-Objectivism on Our Commonsensical Understanding of Normative Reasons for Action</i>
51	Sergio Cremaschi	<i>Anscombe on the Mesmeric Force of 'Ought' and a Spurious Kind of Moral Realism</i>
87	Paolo Costa	<i>Realism without Objectivity Can One Be Both Realist and Quietist in Ethics?</i>
105	Gianfranco Pellegrino	<i>Evolutionary Debunking of Normative Realism</i>
141	Massimo Reichlin	<i>Realism and Naturalisation in a Practical Reason Account</i>

M o n o g r a p h i c a II
EPISTEMIC DEMOCRACY

161	Ivan Cerovac	<i>Guest Editor's Preface</i>
169	Chiara Destri	<i>Right Or Wrong, It's Democracy. Legitimacy, Justification and the Independent Criterion</i>
191	Ivan Mladenović	<i>Epistemic Foundations of Democratic Authority</i>
207	Marko-Luka Zubčić	<i>Belief-Revision, Epistemic Contribution, and Polynormativity</i>

- 229 Snježana Prijic Samaržija *The Role of Experts in a Democratic Decision-making Process*
- 247 Sebastián Linares Lejarraga *Democracy, Epistemic Value, and Political Equality: a New Model of Epistemic Participatory Democracy*

S i m p o s i o

E u g e n i o L e c a l d a n o , *S u l s e n s o d e l l a v i t a*

- 287 Stefano Bacin *La ricerca di un senso nella vita, la prospettiva morale i limiti di una concezione sentimentalista*
- 305 Caterina Botti *Il senso della vita, senza Dio ma con gli altri*
- 315 Lorenzo Greco *Un'esile significanza: Eugenio Lecaldano sul senso della vita*
- 323 Pierpaolo Marrone *Il senso della vita: la risposta è dentro di te, ma potrebbe essere quella sbagliata*
- 333 Gianfranco Pellegrino *Senso della vita e moralità: le relazioni pericolose*
- 355 Simone Pollo *Il senso della vita in un mondo darwiniano*
- 365 Massimo Reichlin *I limiti di una concezione soggettivista del senso della vita*
- 379 Eugenio Lecaldano *Continuando a riflettere sul senso della vita con l'aiuto della discussione*

V a r i a

- 405 Maurizio Balistreri *Robot killer. La rivoluzione robotica nella guerra e le questioni morali*
- 431 Walter Block & Nathan Fryzek *Poverty Inc.: An Economic and Libertarian Analysis*
- 457 Franco Manti *The Moral Decision. From Phronesis to Ethical Competence*
- 471 Riccardo Martinelli *Gli storici e i selvaggi*
- 489 Georg Spielthener *The Particularist Method in Ethics*
- 507 Marco Tuono *La morte: questione ontologica o valoriale?*
- 525 Information on the Journal/Informazioni sulla rivista

EVOLUTIONARY DEBUNKING OF NORMATIVE REALISM. NOT A REAL THREAT FOR REALISTS

GIANFRANCO PELLEGRINO

LUISS Guido Carli

Dipartimento di Scienze Politiche

gpellegrino@luiss.it

ABSTRACT

A debunking argument has been recently levelled against normative realism. According to this line of reasoning, most of our normative beliefs have been strongly influenced by evolutionary forces. As evolution is a non-truth-tracking process, this influence may lead our normative beliefs off track. If so, normative realists need to provide an explanation of how it is possible that our normative beliefs track stance-independent truth, or of how their falsity could be spotted, when evolution powerfully drives us to certain judgments. The article assesses this argument, and tries to show that it is not a real threat to normative realists. Two arguments are employed. First, it is not the case that *most of* our normative beliefs are evolution-driven. There are relevant normative views – for instance, a principle of impartiality – which are quite recalcitrant to evolutionary explanations. Second, if the supervenience of normative on the non-normative holds, then most of our current normative beliefs track truth in the actual world and in the closest possible worlds. As a consequence, the debunking argument amounts either to the trivial remark that the truth of few beliefs is unsafe, or to a standard sceptical argument focusing on the merely logical possibility of epistemic errors.

KEYWORDS

Evolution, normative realism, debunking argument, supervenience, justification, truth.

1. INTRODUCTION

According to the so-called *debunking argument*, most of our normative beliefs are strongly influenced by evolutionary forces. As evolution is a non-truth-tracking process, this influence may lead our normative beliefs off track. If so, normative realists need to provide an explanation of how is it possible that our normative beliefs track stance-independent truths, or of how their falsity could be spotted, even though evolution powerfully drives us to certain judgments.

Contrary to appearances, the debunking argument is not a real threat to normative realists. Two arguments support this conclusion. First, it is not the case that *most* of our normative beliefs are evolution-driven. Indeed, there are relevant normative views – for instance, a principle of impartiality – which are quite recalcitrant to evolutionary explanations. Second, if normative truths supervene on non-normative truths, then most of our current normative beliefs track truth in the actual world, and in the nearest possible worlds. If so, the debunking argument either amounts to the trivial remark that the truth of few normative beliefs is unsafe, or it reduces to the standard skeptical argument focusing on the mere logical possibility of epistemic errors. In both cases, it cannot be a real threat to normative realism.

There is a growing discussion on the debunking argument.¹ In § 2, I provide a detailed presentation of the debunking argument, mapping it onto the present debate. In § 3 I reject the debunking argument, showing how some of its premises are not valid. In § 4 I draw a general conclusion, as follows. The debunking argument is not a real threat to realists, because either it is a very weak challenge to the epistemic status of some specific normative views, or it is a mere repetition of usual skeptical doubts. In both cases, realists can easily reply, either by listing views able to resist debunking or by deploying the usual anti-skeptical arguments.²

2. THE DEBUNKING ARGUMENT FULLY SPECIFIED

2.1. A general version of the debunking argument

¹ See (Carruthers and James 2008; Clarke-Doane 2012, 2016; Crisp 2006, 89–90; Dworkin 1996, 2011, chaps. 2–4; Enoch 2011, 164–5; FitzPatrick 2014; Fletcher 2007; Greene 2008, 2013, Part II; Handfield 2016; Huemer 2008; Kahane 2011; Kitcher 2006; Lazari-Radek and Singer 2014, 178–84, 195–6; Lillehammer 2003; Mogensen 2015a, [b] 2015; Nagel 1997, chaps. 1, 2, 6, 7, 2012, chaps. 4–5; Nozick 1981, 345; Parfit 1984, 186, 308, 2011, §§ 114, 188–19, 2017, §§ 160–4; Pinker 2006; Rachels 2003, 13–5; Rachels and Alter 2005; Shafer-Landau 2012; Singer 1974, 516, 1982, 2011, 2005; Skarsaune 2011; Sinnott-Armstrong 2006, 40–5; Tersman 2008, 2016; Vavova 2014, 2015, 2016; White 2010; Wielenberg 2010, 2016; Wilkins and Griffiths forthcoming; Woods 2016). Alvin Plantinga presented a somewhat parallel argument – with different aims (a critique of evolutionary epistemology); see (Plantinga 1993, chap. 2); other scholars have addressed the debunking arguments to religion and religious beliefs; see (Barrett 2011; Bering 2011; Murray 2009; Plantinga 2011; Thurow 2011) and cp. (Nagel 2012, 135 n. 13; Mason 2010; Shafer-Landau 2007; Wielenberg 2016; Wilkins and Griffiths forthcoming). I shall not consider this topic, here.

² On the connection between the debunking argument and various forms of skepticism, see (Bedke 2014; Clarke-Doane 2016, 27; Enoch 2011, 158–9, 163–4, 167; FitzPatrick 2014; Kahane 2011, 114–20; Joyce 2016b; Nagel 2012, 77; Schafer 2010; Shafer-Landau 2007, 2012; Sher 2001, § 3; Tersman 2008, 400–3; Vavova 2014, 2016; White 2010; Wielenberg 2010, 457).

Consider:

Gallic rain: Jones believes that it rained in France today. Actually, today France was hit by a torrential downpour. However, Jones's belief has not been caused by his perception of this fact, by reliable testimony, or by other proper means of acquaintance (such as TV news, newspaper reports, information from qualified observers, and so on). Rather, Jones has been hypnotized by somebody who had no knowledge of Gallic rain.³

A standard reaction to *Gallic rain* is to declare *unjustified* Jones' belief that it rained in France today.⁴ This reaction presupposes

TRUTH DETERMINES JUSTIFIED BELIEFS (TDB): *Ceteris paribus*, a belief is justified when its truth-makers *uniquely determine* its presence. We believe what we believe because certain facts make our beliefs true. Had the facts been otherwise, we would have believed something else.⁵

A consequence of TDB is that when a belief is determined by something different from its truth-makers, and especially by something that does not *covary* with them, its justification may be challenged. The hypnotist's influx

³ This case is in (Dworkin 2011, 71). See also (Bedke 2014, § 3.1; Enoch 2011, 159–60; Joyce 2005, 179–81, [b] 2016, 157–8, 162, 170–3; Parfit 2017, 265, 287–88; Shafer-Landau 2012, 17; Street 2008, 214–5).

⁴ If Jones' *knowledge* that it rained in France today is considered, then some authors would claim that he doesn't properly know this fact; see (Gettier 1963; Leiter 2004; Vavova 2015, 113 n. 4; White 2010, 596–7). Here, I shall focus only on justification; see (Bedke 2014, § 2; Clarke-Doane 2016; FitzPatrick 2014, 890–1; Kahane 2011, 104, 108, 121 n. 4 and 8; Lillehammer 2010, 362; Shafer-Landau 2007, 2012; Vavova 2015, 104; White 2010; Woods 2016). For a focus on knowledge, see (FitzPatrick 2014, 891 n. 9, 900 n. 18; Shafer-Landau 2012, 4; Tersman 2016; Wielenberg 2010, 441, 447, 452–3). Notice that claims about knowledge of facts such as that it rained in France today do not imply claims about the very existence and ontological status of this fact, or of facts or truths in general. I shall not consider metaphysical issues of this sort here, even though something will be passingly said in § 3.2; see (Enoch 2011, 153–8, 161–2; Sinnott-Armstrong 2006, 44). For a focus on reliability, see (Clarke-Doane 2012, 2014, 2015, 2016; Enoch 2011, 161–2; FitzPatrick 2014, 885; Handfield 2016, § 4.3; Shafer-Landau 2012; Tersman 2008, 2016; Vavova 2016, 9–11, 16; White 2010, 590; Wielenberg 2010, 447–8, 450–1, 2016, § 5.4). See also (Joyce 2016b, 156).

⁵ For my purposes here, a truth-maker is everything makes a belief true, and provides a reason for this belief – I don't need here to specify whether such a thing is a state of affairs, an event, a proposition, the coherent relation of the belief with other beliefs, or its warranted assertability, and so on and so forth. Notice that TDB establishes a connection between truth-makers and beliefs, not between *causes* of believing and beliefs. Whether these two connections should covary is the issue this article focuses on. Cp. (FitzPatrick 2014, 895 n. 16; Joyce 2016b; Vavova 2016, 3; White 2010).

acts as an *undercutting defeater* or an *underminer* for the belief that it rained in France today – i.e. as a ground for doubting that this belief is justified.⁶

Consider:

Reciprocity. Jones believes that the fact that someone has treated him well is a reason to treat that person well in return. This normative belief is actually true. However, Jones' belief has been caused not by his perception of such a truth, or by reliable testimony, or by other purportedly proper means of acquaintance (such as rational reflection, deliverances of moral conscience, or intuition, and so on). Rather, Jones believes that reciprocity is reasonable because he inherited certain elementary pro-attitudes towards reciprocity, and these inherited traits, in their turn, are the upshots of natural selection, for reciprocal behavior brings about adaptive benefits.

Reciprocity can elicit a similar reaction as *Gallic rain*. Jones' belief in reciprocity may be undermined, as it is not determined by its truth-makers: evolutionary forces cause it; it is not the rightness of reciprocity that causes it. Evolution acts as an undercutting defeater for the belief that reciprocity is right.

Some authors generalize *Reciprocity*. They affirm that there are evolution-based reasons to claim that *most of*⁷ our normative beliefs act as Jones' belief in reciprocity. From this, they derive a challenge against non-naturalist, or *robust*, normative realism (the view that at least certain normative beliefs report stance-independent truths, and these truths are non-natural truths).⁸

⁶ See (Joyce 2016b, 147–9; Vavova 2016, 3). On undercutting defeaters or underminers, see (Clarke-Doane 2016, 25; Huemer 2008, 380–1; Joyce 2016b, 157; Kahane 2011, 105–6; Pollock and Cruz 1999, 36–7, 196–7) cp. also (Mogensen 2015a; Shafer-Landau 2012, 8; Wielenberg 2016, § 5.2). The *knowledge* of the hypnotist's influx may be distinguished from the *fact* that the hypnotist had an influx. It might be argued either that the *knowledge* is a defeater or that the very *fact, even if not known*, undermines the belief in Gallic rain; see (White 2010, § 2), and cp. (Clarke-Doane 2016; Joyce 2016b; Vavova 2016; Wielenberg 2016). In what follows, I shall not take this distinction into account.

⁷ See n. 13 below.

⁸ On the debunking argument as a generalization process, see (Mason 2010, 774; White 2010, § 1). Generally, the debunkers maintain that their challenge hits robust internalist realism about practical reasons, whereas it is not clear that it can be addressed to other sorts of realisms, to anti-realist views, or to realism about epistemic reasons; see (Bedke 2014, § 2; Clarke-Doane 2012, 323, 2016, 25; Copp 2008, 189, 191–2; Enoch 2011, 161; Joyce 2005, 182, 243 n. 5; Nagel 2012, 72, 102; Shafer-Landau 2007, 316, 2012, 4 and n. 5, 27, 31; Sinnott-Armstrong 2006, 43; Street 2006, 111–12, 135–41, 2008, 225, 2016, 7; Shafer-Landau 2012; Wielenberg 2010, 456). However, some writers claim that the challenge can be addressed also to naturalist realism or to some forms of anti-realism; see (Bedke 2014, § 2; Enoch 2011, 165; FitzPatrick 2014, 891 n. 10, 901 n. 20; Kahane 2011, 112–3, 122 n. 31–32; Parfit 2017, § 161;

The objection is that non-naturalist normative realism is unable to explain away the undermining impact of evolutionary forces on the justification of our normative beliefs. Among others, M. Ruse, R. Joyce, and more recently S. Street have proposed specific versions of this objection.⁹ This argument is often called *the evolutionary debunking* argument, as its main upshot is to debunk a realist understanding of normative beliefs. The authors who endorse it are called the *debunkers*. A debunking explanation of a view is an explanation that does not entail that the *explanans* is true, or even likely to be true, and this authorizes doubts on the justification of the *explanandum*, thereby explaining it away.¹⁰ If our normative beliefs, the debunkers claim, can be explained as the upshot of evolutionary forces, then no reference to their truth-makers is needed to account for them. Hence, normative realism – understood as the view that normative truths are possible, and indeed relevant – is unsupported.

2.2. A detailed version of the debunking argument

A detailed version of the debunking argument sketched in § 2.1. above can be detailed as follows (arabic numbers refer to content relations among correlated claims. Logical inferences among the steps of the argument are indicated in brackets, when necessary):

Shafer-Landau 2012, 14, 25; Street 2006, 139–41, 163 n. 57, 2008, 224–5, 2016, 8). For a parallel challenge against normative realism about epistemic reasons, see (Street 2009) on which see (Enoch 2011, n. 54 to ch. 7; Evers 2015; Parfit 2011, vol. 2, § 114), and cp. (Kahane 2011, 107). For an extension of the evolutionary challenge to mathematical realism, see (Clarke-Doane 2012); see also (Enoch 2011, 160; Woods 2016) On the debunking argument, cognitivism and non-cognitivism, see (Joyce 2016c; Mason 2010). On the debunking argument and objectivism, see (Kahane 2011).

⁹ This objection may be reviving some worries emerged since the very appearance of evolutionary accounts of our views of normative reasons, possibly beginning with Darwin himself; see (Joyce 2005; Kahane 2011, 103, 105; Lazari-Radek and Singer 2014, 174–6; Lillehammer 2010; Ruse 1986, 252–4; Vavova 2014, 1). Here, I am going to focus on Sharon Street’s formulation: see (Street 2006, 2008, 2009, 2016). See also (Gibbard 1990, 107–8, 2003, § 13; Greene 2008; Huemer 2008, 376–7, 384; Joyce 2000, 2001, 158, 2005, 179–219, 2008, [a] 2016, [d] 2016; Kitcher 2006; Levy 2006; Ruse and Wilson 1986; Singer 2005, 345, 347–51, 2011, 62–3, 68–72, 84–5, 150, 194–6, 204; Sober 1994a; Wilkins and Griffiths forthcoming).

¹⁰ See (Mason 2010, 771; Tersman 2008, 395, 2016, § 3.2; Woods 2016, § 3). The debunking argument should be distinguished by more general challenges, as the mention of elements prompting reassessment of one’s own grounds for belief, or the presence of reasonable disagreement; see (Handfield 2016, § 4.5.2; Mogensen 2015a; Sher 2001, § 4; Vavova 2016; White 2010, 577–9, 587, 605–8). For very general versions of the debunking argument, see (Leiter 2004; Kahane 2011; Mason 2010; Shafer-Landau 2012, 26; Sher 2001, § 1).

Debunking Argument

Assume that the following claims are true:

1. EVOLUTION: **i.** Natural selection causes the emergence of traits (such as the tendency to put forward and endorse certain kind of views about normative reasons) contributing to the reproductive success of their holders.¹¹ **ii.** Adaptive fittingness (i.e. contribution to reproductive success) is the only factor able to determine selection. Natural selection is a non-truth-tracking process.¹²
2. EVOLUTIONARY NORMATIVITY: Most of our normative beliefs – the ones “most deeply and widely held [...] across both time and culture” (Street 2006, 116) – are very likely naturally selected – or partially and successively modified versions of similar previous normative beliefs, more simple and elementary, which are very likely to have been naturally selected.¹³ Our actual normative beliefs may have been developed out of cultural influences or prompted by rational reflection. However, their content has been somewhat indirectly

11 Here, I am not concerned with possible alternative accounts of natural selection, nor do I mean to challenge the validity of such different accounts. For some presentations of them, see (Alexander 1987; Barkow, Cosmides, and Tooby 1992; Buss 2011; Dawkins 2006; Gibbard 1990, 24, 26–8, chap. 4, 7, 8; Haidt 2001, 2012; Kitcher 2011; Mackie 1978; Ridley 1997; Singer 2005, 333–42, 2011, chaps. 1, 2; Sober 1985; Wright 1994; Wilson 1993). These accounts are usually taken for granted by the debunkers, and I shall do the same here (but see the reservations on the implications drawn from them voiced in § 3 below). The debunking argument focusses on the consequences of assuming that at least one of these accounts could be true. It does not inquiry whether this assumption is plausible or not. See (Clarke-Doane 2012, 339, 2016; Copp 2008, 186, 190; Gibbard 1990, 29–30; Joyce 2016b; Kahane 2011, 111; Street 2006, 112–3, 127–8; Skarsaune 2011, 233–4; Sinnott-Armstrong 2006, 40–3; Vavova 2015, 104).

12 See (Bedke 2014, § 2; Greene 2003; Joyce 2005, chap. 6, [b] 2016; Kahane 2011, 111; Mason 2010, 773–4; Rachels and Alter 2005, 315; Ruse 1986, 252, 2006; Shafer-Landau 2012, 22; Street 2006, 157–8 n. 13).

13 The qualifiers ‘most of’ and ‘at least in part’ in **2** account for the fact that an evolutionary account of our cognitive abilities, and hence of our views of normative reasons, does not need to posit that *every* observable trait of our reasoning normative faculties *directly* derives from natural selection. A room for other non-selective or partially selective causes may be allowed: cp. (Bedke 2014, § 2; Dworkin 2011, chap. 4; Enoch 2011, 165; Gibbard 1990, 28–30; Kahane 2011, 118; Street 2006, 113, 2016, 2). On the distinction between evolutionary explanations of (the disposition to voice) specific judgments and evolutionary explanations of broader normative capacities, see (Boniolo 2006, 28; FitzPatrick 2014; Wielenberg 2010, 444). Here, I do not consider the evolutionary debunking arguments addressed to our general capacity to have normative beliefs; see, for instance, (Haidt and Joseph 2004; Handfield 2016, § 4.1; Joyce 2005). My arguments are not to be understood as providing a direct rebuttal of these arguments; see (Bedke 2014, § 2). See also (Joyce 2016e).

influenced by previous naturally selected normative tendencies. An evolutionary story is the best explanation of our views about normative reasons, and of their continuity with more elementary normative judgments spread also among non-human animals, which can be seen as proto-versions of the more refined normative views entertained by humans. The latter have been directly selected, and their presence indirectly influenced finer and later refinements of them. This influence cannot be purged through rational reflection, at least if claim **7** below is true, as nothing – no independent starting point, no perspective, no theoretical first principle – can be immune to the distorting influence of evolutionary forces.¹⁴

2a. DETERMINATION: Natural selection *uniquely* determines the content of most of our normative beliefs. We believe what we believe because we evolved as we evolved. Had some of the evolutionary factors been different, we wouldn't have the same set of normative judgments we now make. Consider a possible world where evolutionary forces were different from those acting in the actual world. Call such a world a *distant evolutionary possible world*. In each and every distant evolutionary possible world the normative basic views of non-human and human animals could be different from those obtaining in the actual world. As a consequence, in each and every distant evolutionary possible world the full-fledged, reflexive, and refined normative views of human beings would be different from those we have in the actual world. (By **2**.)¹⁵

3. SUCCESS: Most of our normative beliefs are true.¹⁶

14 See (Copp 2008, 187–90, 193; Joyce 2005; Kitcher 1993, 2006; Ruse 1986; Sober and Wilson 1998; Sinnott-Armstrong 2006, 43; Street 2006, 124, 2008, 209). On the continuity between non-human and human animals' normative views, see (Waal 1996); see also (Clarke-Doane 2012, 318–9; Kahane 2011, 107, 119; Sher 2001, 74–5; Skarsaune 2011, 230; Street 2009, 226, 234; Vavova 2015, 104). Doubts about **2** have been raised; see, for instance, (FitzPatrick 2014, 886–89, 893–4, 899–901; Parfit 2011, vols. 2, 535; Shafer-Landau 2012, 7 and n. 6, 19–20, 24–5).

15 See (Street 2006, 119–21, 2016, 2). (Lillehammer 2010, 366) traces **2a** back to (Darwin 2004, 122). For the idea of a distant possible evolutionary world, see (Enoch 2011, 173–5; Vavova 2016, 9). Cp. also n. 59 below.

16 Cp. (Sinclair and Leibowitz 2016, § 1.3). SUCCESS is a tenet endorsed by many realists – see (Brink 1989, 17–22; Enoch 2011, 4; Fitzpatrick 2008, 161; Rosen 1994, 281; Sayre-McCord 2015); for a more nuanced view, see (Shafer-Landau 2003, 16–17; Skarsaune 2011, 236). However, SUCCESS may be understood as a neutral tenet – as the idea that under the first-person practical perspective, we cannot but believe that some of our normative beliefs are true, without thereby assuming a realist view of truth: see (Street 2006, 110–11, 141, 152, 2016, § 1,

4. **NORMATIVE REALISM:** **a. *descriptivism*:** normative assertoric claims (i.e. claims concerning reasons; from now onwards **Nc**) are to be interpreted literally, and, when so interpreted, they offer *descriptions* of their objects; **b. *success*:** some **Nc** offer accurate descriptions (i.e. they state genuine facts) and are therefore true; **c. *cognitivism*:** sincere **Nc** express beliefs about their objects; **d. *metaphysical normative realism*:** there exist entities corresponding to some of the terms and claims conveyed by **Nc**; **e. *robust normative realism*:** the entities mentioned sub **d.** are *robustly* mind- or stance-independent: they are independent of our beliefs, attitudes and thoughts about them (even though not necessarily unrelated to some attitudes), and causally inert; **f. *epistemological optimism*:** some of our current beliefs, as expressed in some **Nc**, are justified.¹⁷

5. **TRACKING AS SENSITIVITY:** A belief tracks a truth when, in a possible world where truth-makers were different, the belief would change accordingly. If a belief that *p* exists in the closest possible world where *p* is false, this beliefs is *insensitive*.¹⁸

2017). This is the reason for which I listed the neutral version of SUCCESS as claim 3 and the realist one as claim 4b.

17 Cp. (Sinclair and Leibowitz 2016, § 1.3.). Antirealists can agree that normative truths are independent of *specific* or *particular* actual, or even hypothetical, attitudes, but not of the whole set of attitudes or stances; see (Clarke-Doane 2012, 318; Kirchin 2012, 22; Nagel 2012, chap. 5; Shafer-Landau 2003, 15–7; Street 2006, 110, 111, 137–8, 152, 156 and n. 2, 2008, 208, 214, 218, 223, 2009, 213–6, 2016, 3–6 and especially n. 8, 2017; Wedgwood 2007). *Normative* realism as understood here is wider than *moral* or *evaluative* realism, and the latter are to be considered as subsumed under the former. In the scholarship on the debunking argument, some authors focus on moral realism (Copp 2008; Wielenberg 2010), some on evaluative realism (Street 2006), some others on normative realism (Bedke 2014, § 2; Street 2006, 2008, 209, 218, 222). For debunkers' take on realism, see (Clarke-Doane 2012, 315–8; Copp 2008, 191; Handfield 2016, § 4.1; Kahane 2011, 103–4; Shafer-Landau 2007, 2012, 1; Skarsaune 2011, 238–42; Street 2006, 110–12, 2016; Tersman 2016, § 3.2; Vavova 2015, 106, 113 n. 2; Woods 2016, § 1). On realism in general, see (Brink 1989; Enoch 2011; Fitzpatrick 2008; Kirchin 2012; Kramer 2009; Rosen 1994; Sayre-McCord 2015; Shafer-Landau 2003; Wedgwood 2007). On the issue of the causal powers of moral facts, see (Shafer-Landau 2007, 317–22, 2012, 27–8).

18 On the idea of tracking the truth, see (Nozick 1981). For the application of this idea to the present topic, and for the notion of 'sensitivity', see (Bedke 2014; Clarke-Doane 2012, 318–9, 2016, 26; Crisp 2006, 94; Enoch 2011, n. 11 to ch. 7; FitzPatrick 2014; Joyce 2005, 183, [b] 2016; Kahane 2011, 105; Lillehammer 2010, 365; Mogensen 2015b, § 4.2.; Ruse and Wilson 1986, 186–7; Shafer-Landau 2012, 2–3, 15–20; Sinnott-Armstrong 2006, 46; Street 2006, 132; White 2010, 580; Wielenberg 2016, § 5.3).

6. JUSTIFIED BELIEFS TRACK TRUTHS: *Ceteris paribus*, a belief is justified when it tracks its truth-makers. Insensitive beliefs lack sufficient justification.¹⁹

6a. REALIST TRACKING: Most of our normative beliefs track stance-independent normative truths. Then, they are justified. (By **4**, **5**, and **6**.)

7. OFF-TRACKING: Consider a possible world where **a.** evolutionary forces are the same, but **b.** normative truth-makers are different from the ones obtaining in the actual world. Call this world a *distant normative possible world*. Claims **1.ii**, **2a**, and **5** above give reasons to think that in each and every distant normative possible world our normative beliefs would remain the same. To put it otherwise, it is not necessarily true that a distant normative possible world must be a distant evolutionary possible world. Thus, there are reasons to think that evolutionary forces do not track attitude-independent normative truths, and indeed systematically keep the beliefs they cause off-track – thereby making them unjustified.²⁰

From now onwards, I shall call claims **1**, **2**, **2a** the *evolutionary claims*, whereas **4**, and **6a** will be referred to as the *realist claims*. These claims provide the ground to mount the following:

DARWINIAN DILEMMA AGAINST NORMATIVE REALISM (DDR): If the evolutionary claims, the realist claims and claim **7** are true, then claim **3** is to be false – or better, it is unwarranted: we cannot be justified in maintaining that (most of) our normative beliefs are

¹⁹ TDB (stated in § 2.1. above) and claim **6** in the main text are related in obvious ways. The former involves the latter, even though the latter does not entail the former. If a belief is determined by its truth-makers, then it tracks the truth. However, tracking is not full-fledged determination. In order to have tracking we only need necessary co-variance. Of course, determination, and especially causal determination, entails necessary co-variance. However, it remains to be proved that necessary co-variance requires, or entails, determination, or even causal determination; on this see (Joyce 2016b). A criticism of **6** is in (Vogel 2007); cp. (Shafer-Landau 2012, 2–3; White 2010, 581). **6** would be resisted by epistemic internalists, especially by coherentists; see (Handfield 2016, n. 14).

²⁰ See (Handfield 2016, § 4.3; Street 2006, 121, 124–5, 140); see also (Evers 2015, 3670; Huemer 2008, 379; Kahane 2011, 105; Shafer-Landau 2012, 15). The idea of a distant normative possible world is implicitly referred to in (Street 2006, 133). More explicit treatments are in (Joyce 2001, 163; Ruse 1986, 254; Sinnott-Armstrong 2006, 46; Street 2008, 208). See also (Bedke 2014, § 2; Dworkin 2011) and references at n. 60 below. My presentation of the debunking argument is indebted to (Bedke 2014, § 1; Shafer-Landau 2012, 4–5, 9; Vavova 2014, 2015, 107–8; Wielenberg 2010, 454, 462).

true.²¹ The evolutionary claims show that our normative beliefs do not track stance-independent truths, because they would change in a distant evolutionary possible world, independently of normative facts of the matter – namely, they would track our attitudes, rather than stance-independent truths. Hence, in light of claim **6a** above, our normative beliefs are not justified. As a consequence, either we deny the evolutionary claims, the realist claims, and claim **7**, or we deny that we have sufficient justification for our normative beliefs – i.e. that we have sufficient justification to hold claim **3**. To put it more simply, either we deny the evolutionary claims, the realist claims, and claim **7**, or we deny claim **3**.²² However, the evolutionary claims and claim **7** seem independently compelling. Accordingly, we should reject claim **3**. But this would be an implausible skeptical result.²³ We could avoid skepticism by discarding the realist claims. The evolutionary claims, claim **3** and claim **7** can be consistently true, if a different view of justification and truth is endorsed. Consider the following alternative versions of claims **4** and **6a** above:

4*. ANTI-REALISM: Truth is a function of agents' normative attitudes or stances.²⁴

6a*. ANTI-REALIST TRACKING: Most of our normative beliefs reliably track stance-dependent normative truths. Then, they are justified. (By **3**, **4***, **5**, and **6**.)

Claims **4*** and **6a*** can block skepticism. If normative truth is a function of our attitudes and stances, then it is also a function of the evolutionary influences on them. Accordingly, evolution and truth easily align.²⁵ If forces blind to stance-independent truths have caused our normative beliefs, then

21 A focus on justification is in (Joyce 2005, 179–82, 215; Copp 2008, 191, 193, 197; Sober 1994b, 107). By contrast, Street often puts the dilemma in terms of truth and falsity; see (Street 2006, 125, 2008, 2016). See n. 5 above, and (Clarke-Doane 2012, 323 n. 28; Nagel 2012, 103; Rachels 2003, 14; Shafer-Landau 2007; Wielenberg 2010, 442, 454 n. 48, 462).

22 As (Kahane 2011, 110) points out, there is a difference between a normative view being unjustified and the belief that this view is justified being unjustified (between first-order error and second-order evidence of error). The debunking argument concerns the latter belief. From now onwards, I shall let this difference unnoticed; cp. also (Alston 1980; Vavova 2016, 4–5, 9; White 2010, 577–8, 581, 600–1).

23 See (Copp 2008, 187, 191–2, 194, 196; Lillehammer 2010; Joyce 2016b; Street 2006, 122, 140, 155, 2008, 208, 210, 215, 2016, 6; Vavova 2015, 105).

24 **4*** is a minimal formulation of anti-realism, the only needed to my purposes here.

25 See (Copp 2008, 187; Street 2006, 135, 152–5, 2008, 208–9, 225, 2016, 2, 6); cp. also (Kahane 2011, 112; Lillehammer 2010, 374–7; Nagel 2012, 71–2, 102–3, 105; Shafer-Landau 2012, 13–4). A similar anti-realist strategy is in (Sher 2001, § 6).

normative realism cannot be true. Then, either we endorse skepticism, or we should provide an explanation of how both evolutionary accounts and normative realism can be true. Positing a happy coincidence (we have been caused to believe the truth by forces blind to truth, as a matter of sheer luck) is deeply implausible.²⁶ Claiming that natural selection is causally dependent from stance-independent normative truths, whose perception produces adaptive benefits, would amount to deny claim **1ii**. Then, either the evolutionary claims or the realist claims should go. If the former are taken as *prima facie* plausible, then the latter should go. If an evolutionary explanation of our normative beliefs is possible, then normative realism is debunked. If realism is endorsed, an evolutionary explanation of our normative beliefs should be rejected. Claiming that there is no relation between evolutionary forces and realist truth amounts to surrender, and to letting normative truth unexplained.²⁷

The debunking argument and the ensuing dilemma rest on two crucial premises – claims **2a** and **7** above. In the following section, I argue that these premises are not inescapable. As a consequence, the case against normative realism that the debunkers produce is weaker than it might appear.

3. CHALLENGING THE PREMISES OF THE DARWINIAN DILEMMA

In this section, I claim that, as stated above, **2a** is false, and only a much weaker version of it is true (I shall call **2a*** the weaker version of **2a**), whereas **7** is false in any possible statement of it. If I am right, then the debunking argument has a much weaker impact on normative realism than many debunkers thought.

3.1. Impartiality cannot be debunked. Vs. 2a.

²⁶ See (Street 2006, 142–4, 2008, 208, 211, 214). On the claim that a mere coincidence between evolutionary-driven beliefs and their truth is too much of a fluke – it is an unlikely luck – to be a viable hypothesis, see (Bedke 2014; Clarke-Doane 2012, 321–3, 2016, 30; Dworkin 1996, 125, 2011; Enoch 2011, 160, 164–8; FitzPatrick 2014; Mogensen 2015b, § 4.2.; Shafer-Landau 2007, 2012, 2–4, 9–32; White 2010, 589, 592–605; Wielenberg 2010, 458–61, 2016, § 5.5).

²⁷ See (Street 2006, 2008, 2009, 232–6, 240–2, 2016); cp. also (Clarke-Doane 2012, 315; Enoch 2011, 163, 166–8, n. 20 to ch. 7; Tersman 2016, § 3.2).

2a is an extremely ambitious empirical claim.²⁸ It concerns the impact of evolution on the emergence and the content of most of our normative views. Its role in the debunking argument depends on two of its features. First, **2a** establishes the *scope* of the influence of evolutionary forces on our normative views. The thought is that *most of* our normative views are influenced by evolution. This makes the issue urgent for realists, as they cannot escape the request to explain how these normative views can be true, despite the causes of them not tracking stance-independent truths (as it is suggested by the view of the evolutionary process expressed in **1.ii.**). Second, **2a** establishes that evolutionary forces are the *unique* determinant of most of our normative views. As Streets often affirms, this does not amount to rule out non-evolutionary factors of our normative views, such as rational reflection, cultural change, and the like. However, the thought is that a change in the evolutionary background *necessarily* determines a change in the normative views. In my statement of **2a** in § 2 above I put this idea in terms of the following counterfactual: in a distant evolutionary possible world, people's normative views would be different from the ones we have in the actual world. In this subsection, I take on only the first feature – the *scope* claim. I consider the second feature – the *counterfactual claim* – in the next subsection.²⁹

The reasoning in favor of **2a** may be expressed as follows.

a. Certain psychological traits direct the behavior of their possessors in ways that enhance reproductive success. It is very likely that these traits emerged and have been selected during evolution.

b. The traits mentioned in **a.** are proto-versions of certain normative views now currently diffused. Samples of them are the following judgments:

“(1) The fact that something would promote one's survival is a reason in favor of it.

(2) The fact that something would promote the interests of a family member is a reason to do it.

(3) We have greater obligations to help our own children than we do to help complete strangers.

(4) The fact that someone has treated one well is a reason to treat that person well in return.

²⁸ See (Kahane 2011, 111; Nagel 2012, 101, 1997, 110–11; Sher 2001, 67; Skarsaune 2011, 230; Shafer-Landau 2012, 1–2, 18; Vavova 2015).

²⁹ A similar distinction, between the extent of evolutionary influence and the impact of this influence, were realism true, is in (Shafer-Landau 2012, 9).

(5) The fact that someone is altruistic is a reason to admire, praise, and reward him or her.

(6) The fact that someone has done one deliberate harm is a reason to shun that person or seek his or her punishment.” (Street 2006, 115)³⁰

c. Judgments (1)-(6) have been uniquely determined by evolutionary forces. (By **a-b**).

d. Judgments (1)-(6) prevail and constitute a great part of our current normative views.

Claim **2a** descends from **a-d** above. In her statement of the debunking argument, Sharon Street clearly indicates what one needs to affirm in order to disconfirm **2a** and the reasoning leading to it. Street writes,

Consider the following possible evaluative judgments:

(1’) The fact that something would promote one’s survival is a reason against it.

(2’) The fact that something would promote the interests of a family member is a reason not to do it.

(3’) We have greater obligations to help complete strangers than we do to help our own children.

(4’) The fact that someone has treated one well is a reason to do that individual harm in return.

(5’) The fact that someone is altruistic is a reason to dislike, condemn, and punish him or her.

(6’) The fact that someone has done deliberate harm is a reason to seek out that person’s company and reward him or her.

If judgments like these – one that would, other things being equal, so clearly decrease, rather than increase, the reproductive success of those who made them – predominated among our most deeply and widely held evaluative judgments across both time and cultures, then this would constitute powerful evidence that the content of our evaluative judgments have not been greatly influenced by Darwinian selective pressures. But these are not the evaluative judgments we tend to see; instead, among our most deeply and widely held judgments, we observe many like those on the first list – many with exactly the sort of content one would expect if the content of our evaluative judgments had been heavily influenced by selective pressures. In this way, the observed

³⁰ See also (Axelrod 1984; Buss 2011; Hamilton 1963, [a] 1964, [b] 1964; Sober and Wilson 1998; Trivers 1971); cp. (Dawkins 2006; Haidt 2001; Huemer 2008, 376; Ruse 1986, 145–7).

patterns in the actual content of human evaluative judgments provide evidence in favor of the view that natural selection has had a tremendous influence on that content. (Street 2006, 116–7)

Street's suggestion is that claim **2a** can be disconfirmed by challenging **d** above. Assume that normative views whose tendency is non-adaptive, or even counter-adaptive, are currently endorsed. I call non-adaptive or counter-adaptive, views “such that it will confer either no advantage or even a disadvantage for a given kind of creature to be able to grasp them.” (Street 2006, 130) Evolution cannot explain the presence of these views, of course. So, they need a different explanation – a non-evolutionary one. If these views are sufficiently diffused, or relevant, within our current normative perspective, then **d** should be weakened, or qualified – it is no longer true that judgments (1)–(6) prevail and constitute a great part of our normative views. Thus it is not the case that *most of* our normative views are uniquely determined by evolution. If

d*. Judgments (1)–(6) *do not* prevail and *do not* constitute a great part of our current normative views. Rather, they are a peripheral, or somewhat local, part of our current normative views

is true, then from **a-c** and **d***, we obtain

2a*. WEAK DETERMINATION: Evolution *uniquely* determines the content of *some of* our normative beliefs. We believe *some of* what we believe because we evolved as we evolved. In a distant evolutionary possible world, *some of* our normative beliefs would change. The only plausible explanation of the presence and the content of *some of* our normative beliefs is an evolutionary one.³¹

Street contends that judgments (1)–(6) prevail in our normative perspective, and that there are no plausible counter-adaptive judgments among our “most deeply and widely held judgments”. Therefore, **d*** is false.³²

Against this claim, the following argument can be presented. Consider:

(7) there are *prima facie* reasons to pursue the good, and the good of one individual is of no more importance than the good of any other

³¹ For a different way to weaken **2a**, see (Shafer-Landau 2012, 9, 18–20). For a similar weakening strategy, see (FitzPatrick 2014, 898, 900; Parfit 2011, vol. 2, § 119; Shafer-Landau 2012, 27).

³² A criticism of Street's strategy from a realist perspective is in (Shafer-Landau 2012, 11–2); cp. also (Cuneo and Shafer-Landau 2014; FitzPatrick 2014).

(unless there are special reasons for thinking that more good is likely to be realized in one case rather than in the other).³³

(7) does not appear in the second list framed by Street in the passage mentioned above – where judgments (1’)-(6’) appear. But it is clear enough that (7) is among our most “deeply and widely held” normative judgments. Of course, it may be remarked that (7) is controversial – some authors deny it, some others heavily qualify it.³⁴ However, each judgment in the list (1)-(6) is controversial on its own, and it has been denied and challenged.³⁵ What is more, neither the debunkers nor their opposers can assume substantive truths as uncontroversial by default. The reason for this is as follow. What the debunkers are challenging is the assumption that we have default and independent evidences that our substantive views of practical reasons are true, at least if truth is realistically interpreted. For what we know, our feeling that certain normative views are true could merely be the fruit of evolutionary pressure on us. The main message of the debunking argument is just this: whatever the normative truth could possibly be, if our beliefs are uniquely determined by evolution, we should be able to deny that evolution is driving us off track, or that we are believing what we believe not because of its truth, but simply because of evolutionary forces acting on us. To put the point otherwise, the debunking argument applies *both* to true *and* to false normative beliefs. When it applies to true beliefs, it asks how is it possible that true beliefs coincide with evolutionary-driven beliefs. When it applies to false beliefs, it asks how their falsity can be spotted, notwithstanding the evolutionary pressure pushing us to believe them true. How is it possible that evolution brought us to track the truth, when false beliefs would have been equally possible, and equally adaptive? A presupposition of the debunking argument is that, no matter which normative views are true, if normative views are evolution-driven a conciliation between their causes and their truth (and a way to spot their falsity, notwithstanding their evolution-driven attraction) is to be found.³⁶

33 For statements of this principle, see (Lazari-Radek and Singer 2014, 133–4; Sidgwick 1907, 380).

34 See (Scheffler 1994; Taurek 1977).

35 See (Greene 2013).

36 On the claim that the debunking argument, and the responses to it, should not assume the default truth of the beliefs considered, see (Bedke 2014, § 3; Enoch 2011, 176; Gibbard 2003, 263; Joyce 2016b; Mason 2010, 771; Shafer-Landau 2012, 2, 10–11, 21, 23, 32–35; Street 2006, 132–3, 2008, 214; Tersman 2016; Vavova 2015, 111, 2016, 12; White 2010, 588; Woods 2016, § 1). Some authors challenge this claim, and assume substantive truths as a ground for

One need to show, then, that (7) above is uncontroversial or even true. What matters here is not the fact that (1)-(6) appear true as, or as uncontroversial as, (7), whereas (1')-(6') seem false or controversial. It is exactly the evidential, or the truth-conduciveness, of these appearances that the debunking argument challenges.³⁷

The relevant fact is that, whatever its epistemic or factive status, (7) is still a widespread tenet in many historical and contemporary, philosophical and common sense moral theories – ranging from the golden rule to contemporary impartial consequentialism.³⁸ Notice also that (7) is not a merely formal normative principle, insufficient to warrant any specific, substantive normative belief. (7) can provide grounds to rebut certain specific normative beliefs – notably, judgments (1)-(6) above, among others.³⁹

Importantly, (7) may be counter-adaptive: in certain contexts, someone acting upon it should suffer extreme losses. In many cases, action influenced by (7) will be non-speciesist, fully impartial, aimed at the promotion of the greatest good, independently of any evolutionary outcome.⁴⁰ Of course, if the good is identified with the survival of the individuals or of the species, (7) can

their response to the evolutionary debunking argument; see (Enoch 2011, § 7.4.; Parfit 2011, vol. 2, § 119; Schafer 2010; Skarsaune 2011; Tersman 2016; Wielenberg 2010, 447, 450, 462).

³⁷ Cp. (Handfield 2016, § 4.5.2; Mason 2010, 774, 776). Indeed, in some contexts (2') can be true, or plausible enough – for instance, think about the duty of officials not to be biased towards family members and friends: (2') can express this duty of impartiality. I am grateful to a referee of this journal for having pressed me to clarify my ideas on these points.

³⁸ See (Terry 2011). Notice, though, that (7) does not amount to full-fledged utilitarianism, or to an extreme form of pure altruism – as it is signaled by the mention of '*prima facie* reasons' in its formulation. In order to make (7) overlapping with utilitarianism, one needs to claim that the reasons stated in it are *always overriding* or *decisive*. In its present formulation, (7) is compatible with pluralist views – for instance with views allowing first-personal or other agent-relative prerogatives; see, for instance, (Scheffler 1994). This does not diminish the validity of the general point made in the text, as (7) still is not evolution-driven. Or at least, this I shall claim in the main text. Thanks to M. Reichlin for having pushed me to clarify this point.

³⁹ Better, (7) provides a ground to rebut the claim that judgments (1)-(6) provide overriding, decisive or all-considered reasons to act. (Shafer-Landau 2012, 6) rightly points out that (Huemer 2008, 386) presents only wholly formal principles as epistemically pure, i.e. as able to escape evolutionary bias. This makes his rebutting of the debunking challenge unsuccessful. This is not the case with my version of this strategy, though – thanks to the fact that (7) is not merely formal, but it has a decidedly substantive content.

⁴⁰ In a similar vein, (Shafer-Landau 2012, 7) claims that principles that “counsel impartial benevolence, compassion for vulnerable strangers, kindness to small animals, concern for distant peoples and future generations, and speaking truth to power” are strikingly non-adaptive; cp. also (Enoch 2011, n. 31 to ch. 7). Of course, when (7) and similar principles are embedded in pluralist views where first-personal or agent-relative prerogatives are allowed, they can suggest impartiality and self-sacrifice only in certain cases – i.e. when the stakes are high enough.

imply many of the judgments appearing in the first list mentioned by Street. But any such coincidence needs to be argued for, and it seems rather implausible.⁴¹ Then, (7) is a relevant normative belief, whose self-evidence is grasped through careful reflection, which is agreed upon by many careful thinkers, and, more importantly, which is very likely not to be caused by evolutionary forces, or other similar non-truth tracking processes.⁴² It seems that there is at least one counter-example to **2a**, and a very relevant one. (7), namely a principle of impartial rational benevolence, cannot be debunked, and its truth or falsity are independent of evolutionary causes, nor can they be explained in evolutionary, or other non-truth-tracking, terms. If (7) is true, its truth is not affected by its evolution-driven attractiveness. If (7) is false, its falsity is not made more difficult to spot by its evolution-driven attractiveness. The very presence of (7), and its centrality in our normative thought, can be a ground to argue against **2a** and in favor of **2a***. Let's call the argument made till now the *counter-adaptive exception argument*.⁴³

The following objections can be raised against the counter-adaptive exception argument:

- I. HIDDEN ADAPTIVITY: (7) is not genuinely counter-adaptive. It is simply an enlargement of kin reciprocity and solidarity.
- II. ADAPTIVE BY-PRODUCT, or HISTORICAL ROOTS: (7) may be:
 - i. a judgment obtained by extending immediately adaptive judgments through rational reflection and generalization – the generalization of kin reciprocity can lead to (7);

41 Cp. (Lazari-Radek and Singer 2014, 196; Wilkins and Griffiths forthcoming). This hypothesis – that evolution is good and that this can dissolve the Darwinian dilemma by appealing to a sort of pre-established harmony between evolutionary-driven normative beliefs and normative truths – has been defended: see (Bedke 2014; Enoch 2011, 169–76; Parfit 2011, vol. 2, § 114; Schafer 2010; Skarsaune 2011, §§ 3, 5; Wielenberg 2010, 2016, § 5.4). I am unconvinced, but I have no space here to argue my lack of conviction. See also (Shafer-Landau 2012, 31–2).

42 It might be objected that being self-evident, or grasped by careful reflection, and being embedded in historical moralities, or agreed upon by careful thinkers are contradictory standards, or at most redundant. (This objection has been raised by a referee for this journal.) However, it might be contended that self-evidence, rational access and consent are congruent standards, meaning that each of them reinforce the other, and none is sufficient for *prima facie* plausibility. This is the doctrine stated in (Sidgwick 1907, 338–42).

43 Cp. (FitzPatrick 2014, 896–7; Parfit 2011, vol. 2, § 119) for a partially similar argument. See (Hooker 2016, 140) for a criticism of the counter-adaptive exception argument.

ii. a by-product of more basically adaptive cognitive faculties or capacities;⁴⁴

iii. a historically determined view – being, for instance, embedded in the Golden rule and in historical Christian ethics.⁴⁵

If one of i-iii. is true, then debunking may be in the offing again. An explanation is needed of why evolution, or cultural history, produced, even though as a by-product or a later refinement, a so wonderfully fine-tuned and apt capacity of moral cognition, or something so impartial such as (7).

III. EVOLUTIONARY IMPOSSIBILITY: (7) is genuinely counter-adaptive, i.e. it prevents adaptation and successful evolution. As a consequence, it will soon disappear, or it should have disappeared, as it is a mere transitory superfetation of evolution. Then, either (7) is not a genuine view, or it is doomed.

IV. EVOLUTIONARY SELF-DEFEATINGNESS: (7) is positively dangerous. If generalized, it will soon lead to the extinction of human race. Accordingly, (7) is *evolutionarily self-defeating*.

V. INSUFFICIENCY: even if (7) constitutes a genuine exception to 2a, its mere presence is not enough to reduce the scope of 2a, and to argue in favor of 2a*. Other counter-adaptive exceptions are needed, to build a cumulative case for weakening 2a.

VI. NEGATIVE RESULT: even assuming that (7) is not debunked, or debunkable, this does not amount to saying that it is rationally justified. That (7) is not biased by evolutionary forces simply means that it can aspire to be rationally assessed, not that it has been successful in turning out to be a true normative view. Accordingly, the mere mention of (7) is not enough to rescue normative realism, even though it may be sufficient to weaken 2a.⁴⁶

These objections can be rebutted. As to I, many scholars have shown that (7) cannot be seen as an extension of kin reciprocity or other evolution-driven normative views. Indeed, individuals acting upon (7) will be likely to be selected against, before they could become common enough to have any

44 See (Crisp 2006, 87–8; Enoch 2011, 167–8; Lazari-Radek and Singer 2014, 193; Nagel 2012, 74–5, 79; Parfit 2011, vol– 2, 492–510; Shafer-Landau 2012, 8; Singer 2011, 2006, 145–6; Wielenberg 2010, 443, 445–6, 2016, § 5.5). For some general views of various cognitive capacities as evolutionary by-products, see (Huemer 2005, 216; Maddy 1990, chap. 2; Nozick 1993). For a critical account of these strategies, see (Joyce 2016e).

45 See (Tersman 2008, 401–2).

46 Cp. (Kahane 2011, 119).

impact. There is no convincing evolutionary explanation of why people should help complete strangers, or even individual of other species, especially when this involves sacrifice – even a small sacrifice, even when stakes are very high. From a logical point of view, (7) can be regarded as independent, and not an extension of, principles such as egoism or partial altruism, i.e. of principles underlying (1)-(6) above.⁴⁷

As to **II**, two answers can be given to this objection. First, it might be argued that (7) is so strikingly counter-adaptive, that evolution itself should expectedly have provided obstacles to its diffusion. Accordingly, even assuming that our evolution-driven rationality could have led us to embrace (7), other evolution-driven judgments should conceivably exert a strong pressure against such an endorsement. It might be claimed that is highly unlikely that an evolutionary-driven basic capacity for reasoning could have led to endorse (7). Contrary to mathematical or scientific truth, pure altruism is a dangerous tenet for adaptation and survival. (This claim expresses the meaning of objection **III** above. Objection **III**, then, provides part of the answer to objection **II**.)

Second, the very idea that the by-products of evolution cannot be debunked can be criticized along the lines put forward by Sharon Street. She argues that the Darwinian dilemma can be addressed to the very capacity outgrown by evolution, which can give us access to (7) and similar judgments. This capacity itself is a product of evolution, even though some of the judgments grasped through it are not. Then, an explanation should be given of how is it possible that an evolution-biased capacity is able to track the truth. Evolutionary explanations cannot make reference to the truth. As a consequence, a robustly realist explanation of our capacity to grasp (7) cannot account for its evolutionary bases. However, positing a mere coincidence – claiming that this evolution-based capacity lands us on the truth – is too much of a fluke to be satisfactory. This is enough to reject the claim that (7) can be accounted as a by-product of evolution.

Objections **III** and **IV** can be fruitfully treated together. First of all, a distinction should be made between *counter-adaptive* and *non-adaptive* traits – the latter being capacities or traits not inimical to reproductive fitness, and therefore not liable to be extinguished by natural selection.⁴⁸ Assume that endorsement of (7) is simply non-adaptive. It might be argued that even in this case, its endorsement is in need of explanation, because non-adaptive traits

⁴⁷ See (Bowles 2006; Darwin 2004, chap. 5; Dawkins 2006, 2; Greene 2013, chap. 3; Lazari-Radek and Singer 2014, 186–7, 191–2; Okasha 2013; Sober and Wilson 1998, 5–6, 9); cp. also (Shafer-Landau 2012, 8).

⁴⁸ Cp. (Nagel 2012, 78, 112).

can easily disappear during the millennia of human history – and this is the core of objection **III**. The principle underlying this objection is the following: no relevant traits – no relevant normative or theoretical views – can emerge without an evolutionary explanation. This principle can have different versions – it may be narrower (focusing only on natural selection) or broader (allowing any explanatory connection with evolution). However, it is controversial enough, and many, even within evolutionary psychology scholarship, have criticized it.⁴⁹ Moreover, there are many relevant phenomena whose evolutionary account is still hotly debated, with people proposing different accounts and authors denying that an evolutionary explanation is possible at all – this is the case, for instance, of art or fiction.⁵⁰ Now, this is enough to allow that endorsement of (7) may still lack a plausible evolutionary explanation. This does not imply that such an explanation will not be found in the future. But, for now, endorsement of (7) is here, notwithstanding evolution. This is a sign that evolution did not explain away impartiality, and that no debunking of it can be given, at least for now – and this is an answer to objection **III**.⁵¹

Assume that endorsement of (7) is not only non-adaptive, but also counter-adaptive, i.e. it prevents successful reproduction. If so, as objection **IV** intimates, endorsement of (7) should not be possible, as it would have led to human extinction. To put it otherwise, (7) is *evolutionarily self-defeating*. Evolutionary self-defeatingness may be given the following definition:

EVOLUTIONARY SELF-DEFEATINGNESS: a normative judgment J is evolutionarily self-defeating when **i.** it prevents the reproductive success of its supporters, by causing the extinction of the individuals endorsing it, and **ii.** the extinction of such individuals will prevent the aims set by J from being achieved.

Objection **IV** suggests that **i.** individuals entertaining (7) will be selected against, because their endorsement of (7) will lead them to extreme sacrifices, sacrifices preventing their successful reproduction, and that **ii.**, if people endorsing it fail to reproduce themselves, no one else will endorse (7), and no

49 See, for instance, (Gould and Lewontin 1979; Pigliucci et al. 2000).

50 See, for instance, (Boyd 2009; Gottschall 2012).

51 On the possibility that endorsement of (7) can be defeasible, or revisable, due to a future debunking, cp. (Singer and De Lazari-Radek 2016, 199). (Shafer-Landau 2012, 8) sees defeasibility of principles such as (7) as putting realism “in a precarious position”. For this reason, he argues for a stronger rebutting strategy than the one I am using here.

one will act upon it. Accordingly, the aims set by (7) will no longer be achieved. As a consequence, (7) will fail in its own terms.⁵²

However, that cannot be true, because neither **i.** nor **ii.** are true of (7). Let's start with **ii.** As it should be clear from the responses given to the previous objections, endorsement of (7) is not driven by natural selection. Endorsement of (7) is not an inherited trait. Then, **ii.** is false. Even if all the supporters of (7) in a given generation go extinct, nothing prevents the chance that (7) will reappear later.

Moreover, it might be argued that (7) does not require sacrifices so hard to lead its supporters to extinction. Then, **i.** is false as well. The reasoning for this conclusion is as follows. (7) is an impartial principle, disallowing personal prerogatives – i.e. preferences for one's own good, or for the good of one's dearest and nearest.⁵³ Impartiality amounts to equal concern for the good of everyone, *including oneself*.⁵⁴ Accordingly, self-preferential actions are allowed only when the good produced by them is greater than the good brought about by altruistic acts.

Consider first a world where everyone endorses (7) – a *fully altruistic world*. In this world, any additional altruistic action produces less good than a self-preferential action, because everyone is already doing many altruistic actions, and the marginal contribution of an additional altruistic act is rapidly diminishing. Then, in this world, self-preferential actions will very often be permitted by (7).

Next, consider a world where only some people endorse (7) – a *partially altruistic world*. In this world, there will be many cases in which self-preferential actions produce less good than altruistic acts. In these cases, (7) will require its supporters to act altruistically. However, it might be argued that even in a partially altruistic world, (7) will not require extreme sacrifices, for the following reasons. If extreme sacrifices can lead to the disappearance of altruists, (7) will dictate avoiding these sacrifices, because the disappearance of altruists is an evil to be avoided, even in (7)'s lights. In particular, it might be argued that, beyond a given threshold of altruism, any additional sacrifice will produce less good than self-preferential actions, because of the dangerous

52 The notion of evolutionary self-defeatingness in the main text is reminiscent of, even though not coincident with, the central notions of self-defeatingness in the now standard treatment provided by (Parfit 1984, Part One, especially §§ 10, 11, 17). My response to objection **IV** is deeply indebted to Parfit's treatment. I am grateful to M. Reichlin for prompting me to clarify many points in my discussion here.

53 From now onwards, I shall call an action driven by preference for one's own good, and for the good of one's nearest and dearest, a *self-preferential action*.

54 On impartiality, see (Jollimore 2014).

prospect of the disappearance of altruists. In such extreme cases, (7) will dictate self-preferential actions. In very extreme cases, (7) can even require that most people discard their belief in (7), and instead adopt judgements similar to (1)-(6) – at least if this is compatible with a residual dose of altruism, and saves these impure altruists from disappearance. (7), then, could be *indirectly self-defeating* or *partially self-effacing*. However, this does not show that (7) is failing in its own terms – as in these sorts of cases the dispositions or the beliefs dictated by (7) will produce the best outcome, in terms of impartial good. Both in fully and in partially altruistic worlds, then, (7) will be evolutionarily stable, as it will not require sacrifices leading its supporters to extinction.⁵⁵

However, as it is suggested by objection V, this may not be enough. Even allowing that (7) is an exception to the general evolutionary origins of our normative views, an isolated exception does not change the general picture. Most of our normative views can be debunked. As a consequence, 2a is true in the majority of cases.

But (7) is not so isolated as it may appear. First of all, (7) can be expressed in a more general way. Consider:

(8) whatever *prima facie* reason one has to do a given action, one's own identity or the identity of anyone involved in the action never act as defeaters or intensifiers of the reason considered.

(7) is a narrower version of (8), and we can imagine many other versions of (8) – for each and every specific practical reason we can envisage. (8) seems to be as non-adaptive as (7), and for the same reasons – it does not promote kin reciprocity, or species survival. Indeed, it can dictate sacrifice in favor of strangers and individuals of different species. Then, many specific impartial principles can be mentioned that are recalcitrant to evolutionary debunking, each of them being a specific implementation of general impartiality. In its turn, impartiality is a widely held and relevant ideal of human culture in many ages.⁵⁶

⁵⁵ Notice that the fact that (7) is evolutionarily stable does not amount to saying that it is *evolution-driven*. The persistence of a given trait can be stable across evolutionary times, because no evolutionary force will never be able to jeopardize it. But the persistence of a given trait can in another sense be completely unrelated to evolution: evolutionary forces are neither able to promote nor able to prevent it. My claim in the text is that (7) is unrelated to evolutionary forces in such a way.

⁵⁶ Cp. (Lazari-Radek and Singer 2014, 198). Indeed, other substantive principles can be mentioned whose impact and content are non-adaptive. These principles, though, are not easily derivable from a general principle of impartiality. (Sinnott-Armstrong 2006, 43), for instance, mentions the duty not to kill and to care senile elderly people who cannot survive without great

Then, there are many exceptions to **2a**. As objection **VI** suggests, this may be a merely negative result. The fact that ideals of impartiality cannot be evolutionarily debunked is not proof of their truths. We still need an independent argument for this conclusion, and there is no warrant that this argument will go through stance-independent truth-makers. However, once we have some views whose emergence cannot so easily be explained in evolutionary terms, we can dismiss the Darwinian dilemma: there is no need to explain how these views can be true and simultaneously being produced by a non-truth-tracking process, or how these views can be false even though we are irresistibly led to endorse them, due to evolutionary pressures. Truth or falsity of pure impartiality can be assessed independently of these worries. **2a** should be substituted with **2a***. The latter narrows down the *scope* of **2a**: it is not the case that *most of our normative views* are influenced by evolution; rather, while *some* normative views are so influenced, other – equally relevant – views are not driven by evolutionary forces.

3.2. *Counterfactuals. Vs. 7.*⁵⁷

Consider the following counterfactuals:⁵⁸

A. In a distant evolutionary possible world, people's normative views would have been different from the ones held in the actual world (*different* evolutionary forces yield *different* normative beliefs).

B. In a near evolutionary world, a world where evolutionary forces are identical to the ones obtaining in the actual world, people would have the same normative views held in the actual world (*identical* evolutionary forces yield *identical* normative beliefs).

C. In a distant normative possible world, a world where normative facts of the matter would have been different, which is not also a distant evolutionary possible world, people's normative views would be the same as those held in the actual world (*identical* evolutionary forces and *different* normative facts yield *identical* normative beliefs).

help and who cannot reciprocate adequately or have more children and the doctrine of the double effect (but see (Wielenberg 2016, § 5.5). (FitzPatrick 2014, 897) mentions the belief that we should make present sacrifices to help protect distant, future generations from the harmful effects of climate change.

⁵⁷ Some of my claims in this subsection are similar to the ones presented in (Wielenberg 2010, 454–6).

⁵⁸ See (Bedke 2014, § 3.2; Clarke-Doane 2012, 319–20, 2016; Field 2005; Lillehammer 2010, 365; Sinnott-Armstrong 2006, 44).

D. In a distant normative possible world, which is not also a distant evolutionary possible world, people's normative views would be different from the ones held in the actual world (*different* normative facts and *identical* evolutionary forces yield *different* normative beliefs).⁵⁹

C underlies claim **7** above. Specifically, **7** suggests that **C** obtains. The counterfactual described in **C** shows that evolutionary forces prevent our normative beliefs from tracking stance-independent truths. This makes normative realism false. To put it in terms of the counterfactuals listed above, if **C** holds, then **D** doesn't. (Had evolutionary forces tracked normative truths, **D** would have been holding.)

However, in its turn the counterfactual described in **C** rests on those contained in **A** and **B**. These counterfactuals suggest that our normative beliefs track evolutionary forces, rather than stance-independent truths.

But if the conclusions reached in § 3.1. above are valid, then the counterfactuals described in **A** and **B** are no longer true. Many impartial principles such as (7) or (8) above could be held in distant evolutionary possible worlds, since in our actual world they held independently of the impact of evolutionary forces on other principles. But if **A** and **B** are no longer true, **C** can be challenged as well. If there are views that can be held in distant evolutionary worlds, it may be argued that these principles are held because they are tracking the truth. Or at least, if these principles are held in a sufficiently large number of possible worlds, *as well as in our actual world*, then it might be suggested that they track the normative truth. This is sufficient to challenge the idea that evolutionary forces systematically distort our normative beliefs, which is what **7** implies. **7** suggests that in a distant normative possible world which is not also a distant evolutionary possible world – call it a *C-world* –, normative beliefs would necessarily align with evolutionary forces (i.e. they would be uniquely determined by them), but evolutionary forces would never align with normative truths (i.e. they would

⁵⁹ On the reason why **A** and **B** are unproblematic counterfactuals, see (Clarke-Doane 2012, 319–20). On why

A*. In a distant evolutionary possible world, people's normative views would have been *identical* to the ones held in the actual world (*different* evolutionary forces yield *identical* normative beliefs),

and

B*. In a near evolutionary possible world, a world where evolutionary forces are identical to the ones obtaining in the actual world, people would have *different* normative views from the ones held in the actual world (*identical* evolutionary forces yield *different* normative beliefs), are not relevant to the present discussion, see again (Clarke-Doane 2012, 320).

never uniquely track truth). As a consequence, in a C-world, normative beliefs would be systematically off-track. While it might be true that evolutionary forces would not align with normative truth – or at least nothing has here been said to deny this –, the result of § 3.1. above has been to deny that normative beliefs would necessarily align with evolutionary forces. Necessary alignment would occur if **2a** is true. But if **2a*** is true, then there is no *necessary* alignment. Some normative beliefs may align with evolutionary forces, but many others may not. Accordingly, we couldn't know which beliefs people would have in a C-world. Or at least, we couldn't draw any conclusion on this issue from mere consideration of the direction and the nature of evolutionary forces.

Another argument can be given here concerning C-worlds. Most scholars concur in accepting the idea that any viable metaethical view should account for the supervenience of the normative on the non-normative, or on the natural, on pain of making moral assessments arbitrary. As R. Shafer-Landau puts it, “we cannot conceive of a plausible moral order that licences different moral ascriptions for situations that are in all other respects identical.” (Shafer-Landau 2003, 78)⁶⁰

Consider again a C-world. It can be interpreted in two different ways. If evolution *fixes* the overall descriptive properties of a C-world, then it is also *descriptively identical* to our world. But a world that is descriptively identical to our world cannot be normatively different from the latter. A C-world, then, goes against supervenience. It may be both conceptually and metaphysically impossible. To put it otherwise, the fact is that if evolutionary forces, and the

⁶⁰ Shafer-Landau deals with moral realism. However, his claims can be easily transferred to normative realism; see (Blackburn 1993, chap. 6; Hare 1952, 80–1, *passim*, 1989; Sturgeon 1985); *cp.* also (Kramer 2009, chap. 10). Indeed, some authors contended that a problem for normative non-naturalist realism is how to frame an account of the supervenience relation – how to give a viable explanation of the fact that non-normative properties covary with normative ones, without assuming identity of normative and non-normative properties; see (Blackburn 1993, chaps. 6–7, 1984, 182–7). Shafer-Landau gave an answer to this dilemma, by positing an asymmetrical relation of constitution between normative and non-normative properties. His idea is that a true normative predication does not entail any particular descriptive one – this allows him to reject identity –, but the non-normative characteristics fix a thing's normative features: see (Shafer-Landau 2003, 85) Despite normative properties not being identical to physical ones, the former are *realized* by instantiations of physical properties. Thus, no normative facts can obtain without the physical stuff that *constitutes* them. Natural facts, then, *exhaustively compose*, or *constitute*, normative facts; see (Shafer-Landau 2003, 73–6). As a consequence, a thing's normative status cannot change without some correlative change in its non-normative features: the non-normative features of a situation fix its normative status – a normative fact supervenes on a particular concatenation of descriptive facts just because these facts realize the normative property in question; see (Shafer-Landau 2003, 77).

rest of descriptive properties, in a C-world are identical to the descriptive characteristics of our actual world, normative truths in a C-world cannot differ from normative truths in our world. Descriptive features fix normative properties. Then, the counterfactual envisaged in 7 is impossible.⁶¹

Alternatively, a C-world may be evolutionarily identical, but descriptively different. If so, normative facts of the matter would be different. But then there is no guarantee that normative beliefs will be systematically off-track – at least since 2a is not true. We need further arguments to claim that in a C-world where evolutionary facts do not exhaust the descriptive base, most normative beliefs will be off-track.⁶²

7, then, is doubly wrong. Either it is false in suggesting that in a C-world normative beliefs would necessarily align with evolutionary forces – this is a result of the fact that 2a is false, while 2a* is true –, or it is conceptually flawed,

61 Here, I make several assumptions, which I have no space to defend. For instance, I assume global and inter-worlds supervenience, and I am assuming that supervenience holds both as a metaphysical and a conceptual requirement; cp. (Shafer-Landau 2003, 85–9). Many scholars argue that a C-world may be metaphysically impossible, but still *conceptually* possible, i.e. that it is at least intelligible, as we can conceive of a world where normative truths are different from the ones holding in the actual world, but anything else – including normative beliefs – is identical to anything existing in the actual world; see (Clarke-Doane 2012, 320–1, 323–6, 334; Shafer-Landau 2012, 16; Street 2008, 208). According to these scholars, that a C-world is conceptually possible, or intelligible, is enough to trigger the Darwinian dilemma. I am unconvinced. My main reason is the following. If supervenience rests on a constitution claim, as it does in Shafer-Landau’s approach summarized in n. 63 above, then epistemic access to, and conceptual intelligibility of, normative properties require a grasp of the subvenient descriptive features. To put it otherwise, it is impossible to grasp normative concepts without grasping their application – i.e. without grasping the things having the normative properties that these concepts refer to. As a consequence, we can conceive of multiple realizability – i.e. we can conceptually envisage that the same normative property can be joined to different clusters of non-normative properties. But we cannot conceive the denial of the following conditional: if a given normative property **Np** applies to a given cluster of descriptive properties **Dp**, then, *in the same world, or in identical worlds*, any instance of **Dp** will instantiate **Np** as well. However, further arguments are needed to support this claim, and I have no space here to provide them. Notice, also, that there are two different issues here. One thing is to say that a C-world it is not metaphysically and conceptually possible. Another thing is to say that a radically alternative world, a very distant possible world, – different both in its normative and in its descriptive properties – is not metaphysically and conceptually possible. A third possibility is a world with *different* descriptive properties and the *same* normative properties. The latter two possibilities are both possible – consider **A*** and **B*** in n. 60 above. (Clarke-Doane 2012, 325) seems conflating these different distinctions. My remarks here are similar to the ones in (Shafer-Landau 2007, 326, 2012, 16)

62 For arguments that are similar to the one given in the text, see (Clarke-Doane 2016, 26–7, 30).

because it violates supervenience, and postulates a metaphysically and conceptually impossible world.⁶³

4. CONCLUSIONS.

At least in the reconstruction given in § 2 above, the debunking argument crucially relies on two premises – **2a** and **7**. The arguments given in § 3 above show that **7** is either false or conceptually flawed, and a much weaker claim, **2a***, is to be substituted to **2a**. As a consequence, the upshot of the debunking argument is much more limited than the debunkers would like to suggest. What the debunking argument can show is that *some of our* normative views are biased by evolution. But there are other views that can resist this bias, and whose epistemic status is not problematic. It seems, then, that realists have nothing to fear from the debunking argument – or at least nothing new. All the doubts that the debunkers raise coincide with standard skeptical objections to normative realism.⁶⁴ The debunking argument has been presented as an empirical claim, to the effect that many of our normative beliefs are unjustified, or insufficiently justified. It turns out that it is either a much more limited claim – some of our normative views can be unjustified or insufficiently justified – or a trivial conceptual claim – all our normative views may be false.

Consider:

Optometrist. Your optometrist says that your color vision might be deceiving you: the tests suggest you are blue-green colorblind.

Skeptic. The skeptic says that all your senses might be deceiving you. She has done no tests.

(Vavova 2015, 105–6) claims that the debunking argument is to be likened to *Optometrist*, and that this makes it more formidable and threatening than

⁶³ Notice that claiming that normative truths are fixed by non-normative truths, and that the supervenience of normative on non-normative holds, does not amount to claiming that certain normative truths hold *in every possible world*, but to the rather weaker claim that normative truths are stable across identical, or relevantly similar, worlds; cp. (Clarke-Doane 2016, 26–7; Joyce 2016b; Shafer-Landau 2012, 15–6; Tersman 2016, § 3.3; Wielenberg 2016, § 5.5). For arguments similar to the one given in the text, see (Handfield 2016, § 4.3; Wielenberg 2016, § 5.3).

⁶⁴ Cp. (Vavova 2014). On the connection between the debunking arguments and other kinds of objections to normative realism, in particular Harman's challenge in (Harman 1977, 7–9), see (Clarke-Doane 2016; Enoch 2011, chap. 7; FitzPatrick 2014, 891; Joyce 2005, 184–90; Mogensen 2015b, § 3; Shafer-Landau 2007, 2012, 1–2; Wielenberg 2010, 452, 461; Woods 2016).

the skeptical challenge. The debunkers advance an empirical claim, which challenges the reliability of most of our normative beliefs.⁶⁵

Consider this case:

Illusion. Exposed to the Muller-Lyon illusion's picture, you systematically produce wrong assessment of length. The physiological features of your eye explain these assessments. In the rest of non-delusive cases, you have a good intuitive grasp of length.⁶⁶

It is my contention here that, with **2a*** in place of **2a**, and without **7**, the debunking argument is to be likened to *Illusion*. This is not a great threat to a realist interpretation of vision. The same holds for normative beliefs. The debunking argument is not a real threat to normative realism – or at least it is no greater threat than standard skeptical arguments or local instances of mistaken beliefs.⁶⁷

REFERENCES

- Alexander, Richard. 1987. *The Biology of Moral Systems*. Hawthorne, N.Y.: Aldine Transaction.
- Alston, William P. 1980. "Levels Confusions in Epistemology." *Midwest Studies in Philosophy* 5: 135–50.
- Axelrod, Robert. 1984. *Evolution Of Cooperation*. First Edition edition. New York: Basic Books.
- Barkow, Jerome H., Leda Cosmides, and John Tooby, eds. 1992. *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. New York: Oxford University Press.
- Barrett, Justin L. 2011. *Cognitive Science, Religion, and Theology: From Human Minds to Divine Minds*. West Conshohocken, PA: Templeton Press.
- Bedke, Matthew. 2014. "No Coincidence?" In *Oxford Studies in Metaethics, Volume 9*, edited by Russ Shafer-Landau, 102–25. Oxford University Press.
- Bering, Jesse. 2011. *The Belief Instinct: The Psychology of Souls, Destiny, and the Meaning of Life*. New York: W. W. Norton & Company.
- Blackburn, Simon. 1984. *Spreading the Word: Groundings in the Philosophy of Language*. Oxford Oxfordshire : New York: Clarendon Pr.
- . 1993. *Essays in Quasi-Realism*. New York: Oxford Univ. Press.

⁶⁵ Cp. also (Bedke 2014, § 3.1).

⁶⁶ For a different use of the same example, see (Mason 2010, 776).

⁶⁷ I am grateful to M. Reichlin and a referee for this journal for very useful comments on a previous version of this article. Michele Bocchiola read a previous version of this paper, giving precious suggestions on the form and the content of it. xI am grateful to him. Usual *caveats* hold.

Boniolo, Giovanni. 2006. "The Descent of Instinct and the Ascent of Ethics." In *Evolutionary Ethics and Contemporary Biology*, 27–42. Cambridge: Cambridge University Press.

Bowles, Samuel. 2006. "Group Competition, Reproductive Leveling, and the Evolution of Human Altruism." *Science* 314 (5805): 1569–72.

Boyd, Brian. 2009. *On the Origin of Stories: Evolution, Cognition, and Fiction*. 1 edition. Cambridge, Mass: Belknap Press of Harvard University Press.

Brink, David Owen. 1989. *Moral Realism and the Foundations of Ethics*. Cambridge ; New York: Cambridge University Press.

Buss, David. 2011. *Evolutionary Psychology: The New Science of the Mind*. 4 edition. Boston: Pearson.

Carruthers, Peter, and Scott M. James. 2008. "Evolution and the Possibility of Moral Realism." *Philosophy and Phenomenological Research* 77 (1): 237–44.

Clarke-Doane, Justin. 2012. "Morality and Mathematics: The Evolutionary Challenge." *Ethics* 122 (2): 313–40.

———. 2014. "Moral Epistemology: The Mathematics Analogy." *Noûs* 48 (2): 238–55.

———. 2015. "Objectivity in Ethics and Mathematics." *Proceedings of the Aristotelian Society* Virtual Issue 3: 100–105.

———. 2016. "Debunking and Dispensability." In *Explanation in Ethics and Mathematics: Debunking and Dispensability*, edited by Uri D. Leibowitz and Neil Sinclair, 23–36. Oxford: Oxford University Press.

Copp, David. 2008. "Darwinian Skepticism About Moral Realism*." *Philosophical Issues* 18 (1): 186–206.

Crisp, Roger. 2006. *Reasons and the Good*. 1 edition. Oxford ; New York: Clarendon Press.

Cuneo, Terence, and Russ Shafer-Landau. 2014. "The Moral Fixed Points: New Directions for Moral Nonnaturalism." *Philosophical Studies* 171 (3): 399–443.

Darwin, Charles. 2004. *The Descent of Man*. Edited by James Moore and Adrian Desmond. Reprint edition. Princeton, N.J.: Penguin Classics.

Dawkins, Richard. 2006. *The Selfish Gene*. 3 edition. Oxford ; New York: Oxford University Press.

Dworkin, Ronald. 1996. "Objectivity and Truth: You'd Better Believe It." *Philosophy & Public Affairs* 25 (2): 87–139.

———. 2011. *Justice for Hedgehogs*. First Edition. Cambridge, Mass: Belknap Press.

Enoch, David. 2011. *Taking Morality Seriously: A Defense of Robust Realism*. OUP Oxford.

Evers, Daan. 2015. "Street on Evolution and the Normativity of Epistemic Reasons." *Synthese* 192 (11): 3663–76.

- Field, Hartry. 2005. "Recent Debates About the A Priori." In *Oxford Studies in Epistemology*, edited by Tamar Szabo Gendler and John Hawthorne, 69–88. Oxford University Press.
- Fitzpatrick, William. 2008. "Robust Ethical Realism, Non-Naturalism, and Normativity." *Oxford Studies in Metaethics* 3: 159–205.
- FitzPatrick, William J. 2014. "Debunking Evolutionary Debunking of Ethical Realism." *Philosophical Studies* 172 (4): 883–904.
- Fletcher, Guy. 2007. "Wrongness, Welfarism and Evolution: Crisp on Reasons and the Good." *Ratio* 20 (3): 341–47.
- Gettier, Edmund L. 1963. "Is Justified True Belief Knowledge?" *Analysis* 23 (6): 121–23.
- Gibbard, Allan. 1990. *Wise Choices, Apt Feelings: A Theory of Normative Judgment*. Cambridge, Mass: Harvard University Press.
- . 2003. *Thinking How to Live*. Cambridge, MA: Cambridge University Press.
- Gottschall, Jonathan. 2012. *The Storytelling Animal: How Stories Make Us Human*. First Edition edition. Boston: Houghton Mifflin Harcourt.
- Gould, S. J., and R. C. Lewontin. 1979. "The Spandrels of San Marco and the Panglossian Paradigm: A Critique of the Adaptationist Programme." *Proceedings of the Royal Society of London. Series B, Biological Sciences* 205 (1161): 581–98.
- Greene, Joshua. 2003. "From Neural 'Is' to Moral 'Ought': What Are the Moral Implications of Neuroscientific Moral Psychology?" *Nature Reviews Neuroscience* 4 (10): 846–50.
- . 2008. "The Secret Joke of Kant's Soul." In *Moral Psychology. Vol. 3: The Neuroscience of Morality*, edited by Walter Sinnott-Armstrong, 35–80. Cambridge: MIT Press.
- . 2013. *Moral Tribes: Emotion, Reason, and the Gap Between Us and Them*. 1st edition. New York: Penguin Press.
- Haidt, Jonathan. 2001. "The Emotional Dog and Its Rational Tail: A Social Intuitionist Approach to Moral Judgment." *Psychological Review* 108: 814–34.
- . 2012. *The Righteous Mind: Why Good People Are Divided by Politics and Religion*. New York: Pantheon.
- Haidt, Jonathan, and C. Joseph. 2004. "Intuitive Ethics: How Innately Prepared Intuitions Generate Culturally Variable Virtues." *Daedalus* 133 (4): 55–66.
- Hamilton, W. D. 1963. "The Evolution of Altruistic Behavior." *The American Naturalist* 97 (896): 354–56.
- . 1964a. "The Genetical Evolution of Social Behaviour. I." *Journal of Theoretical Biology* 7 (1): 1–16.
- . 1964b. "The Genetical Evolution of Social Behaviour. II." *Journal of Theoretical Biology* 7 (1): 17–52.

Handfield, Toby. 2016. "Genealogical Explanations of Chance and Morals." In *Explanation in Ethics and Mathematics: Debunking and Dispensability*. Oxford: Oxford University Press.

Hare, Richard Mervyn. 1952. *The Language of Morals*. Oxford: Clarendon Press.

———. 1989. "Supervenience." In *Essays in Ethical Theory*, 66–81. Oxford: Oxford University Press.

Harman, Glibert. 1977. *The Nature of Morality*. Oxford: Oxford University Press.

Hooker, Brad. 2016. "Wrongness, Evolutionary Debunking, Public Rules." *Ethics and Politics* XVIII (1): 135–49. <http://www.openstarts.units.it/dspace/handle/10077/12708>.

Huemer, Michael. 2005. *Ethical Intuitionism*. Houndsmills, Basingstoke, Hampshire: Palgrave Macmillan.

———. 2008. "Revisionary Intuitionism." *Social Philosophy and Policy* 25 (01): 368–92.

Jollimore, Troy. 2014. "Impartiality." Edited by Edward N. Zalta. *The Stanford Encyclopedia of Philosophy*. <http://plato.stanford.edu/archives/spr2014/entries/impartiality/>.

Joyce, Richard. 2000. "Darwinian Ethics and Error." *Biology and Philosophy* 15 (5): 713–32.

———. 2001. *The Myth of Morality*. New York: Cambridge University Press.

———. 2005. *The Evolution of Morality*. Cambridge, Mass: MIT Press.

———. 2008. "Preçis of The Evolution of Morality." *Philosophy and Phenomenological Research* 77 (1): 213–18.

———. 2016a. *Essays on Moral Skepticism*. Oxford: Oxford University Press.

———. 2016b. "Evolution, Truth-Tracking, and Moral Skepticism." In *Essays in Moral Skepticism*, 142–58. Oxford: Oxford University Press.

———. 2016c. "Irrealism and the Genealogy of Morals." In *Essays in Moral Skpeticism*, 159–74. Oxford: Oxford University Press.

———. 2016d. "Reply. Confessions of a Modest Debunker." In *Explanation in Ethics and Mathematics: Debunking and Dispensability*. Oxford: Oxford University Press.

———. 2016e. "The Origins of Moral Judgment." In *Essays in Moral Skeptiism*, 109–21. Oxford: Oxford University Press.

Kahane, Guy. 2011. "Evolutionary Debunking Arguments." *Noûs* 45 (1): 103–25.

Kirchin, Simon. 2012. *Metaethics*. 2012 edizione. New York: Palgrave Macmillan.

Kitcher, Philip. 1993. "The Evolution of Human Altruism." *Journal of Philosophy* 60 (10): 497–516.

———. 2006. "Biology and Ethics." In *The Oxford Handbook of Ethical Theory*, 163–85. Oxford: Oxford University Press.

- . 2011. *The Ethical Project*. Cambridge, MA: Harvard University Press.
- Kramer, Matthew H. 2009. *Moral Realism as a Moral Doctrine*. 1 edition. Chichester, U.K.; Malden, MA: Wiley-Blackwell.
- Lazari-Radek, Katarzyna de, and Peter Singer. 2014. *The Point of View of the Universe: Sidgwick and Contemporary Ethics*. Oxford; New York, NY: Oxford University Press.
- Leiter, Brian. 2004. "The Hermeneutics of Suspicion: Recovering Marx, Nietzsche, and Freud." In *The Future for Philosophy*. Oxford: Oxford University Press.
- Levy, Neil. 2006. "Cognitive Scientific Challenges to Morality." *Philosophical Psychology* 19 (5): 567–87.
- Lillehammer, Hallvard. 2003. "Debunking Morality: Evolutionary Naturalism and Moral Error Theory." *Biology and Philosophy* 18 (4): 567–81.
- . 2010. "Methods of Ethics and the Descent of Man: Darwin and Sidgwick on Ethics and Evolution." *Biology & Philosophy* 25 (3): 361–78.
- Mackie, John Leslie. 1978. "The Law of the Jungle: Moral Alternatives and Principles of Evolution." *Philosophy* 53: 455–64.
- Maddy, Penelope. 1990. *Realism in Mathematics*. Oxford: New York: Oxford University Press.
- Mason, Kelby. 2010. "Debunking Arguments and the Genealogy of Religion and Morality." *Philosophy Compass* 5 (9): 770–78.
- Mogensen, Andreas L. 2015a. "Contingency Anxiety and the Epistemology of Disagreement." *Pacific Philosophical Quarterly*, 1–22.
- . 2015b. "Evolutionary Debunking Arguments and the Proximate/ultimate Distinction." *Analysis* 75 (2): 196–203.
- Murray, M.J. 2009. "Scientific Explanations of Religion and the Justification of Religious Belief." In *The Believing Primate*, 168–78. Oxford: Oxford University Press.
- Nagel, Thomas. 1997. *The Last Word*. 1 edition. New York: Oxford University Press.
- . 2012. *Mind & Cosmos: Why the Materialist Neo-Darwinian Conception of Nature Is Almost Certainly False*. 1st edition. New York: Oxford University Press.
- Nozick, Robert. 1981. *Philosophical Explanations*. New edition edition. Cambridge, Mass: Belknap Press.
- . 1993. *The Nature of Rationality*. First Edition edition. Princeton, N.J: Princeton University Press.
- Okasha, Samir. 2013. "Biological Altruism." In *The Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, Fall 2013. <http://plato.stanford.edu/archives/fall2013/entries/altruism-biological/>.
- Parfit, Derek. 1984. *Reasons and Persons*. Oxford: Clarendon Press.
- . 2011. *On What Matters*. 2 vols. Oxford; New York: Oxford University Press.

- . 2017. *On What Matters: Volume Three*. Oxford: Oxford University Press.
- Pigliucci, Massimo, Jonathan Kaplan, Massimo Pigliucci, Jonathan Kaplan, Massimo Pigliucci, Jonathan Kaplan, Massimo Pigliucci, and Jonathan Kaplan. 2000. "The Fall and Rise of Dr Pangloss: Adaptationism and the Spandrels Paper 20 Years Later." *Trends in Ecology & Evolution* 15 (2): 66–70.
- Pinker, Steven. 2006. "Evolution and Ethics." In *Intelligent Thought: Science versus the Intelligent Design Movement*, 142–52. New York: Vintage.
- Plantinga, Alvin. 1993. *Warrant and Proper Function*. 1 edition. New York: Oxford University Press.
- . 2011. *Where the Conflict Really Lies: Science, Religion, and Naturalism*. New York: Oxford University Press.
- Pollock, John L., and Joseph Cruz. 1999. *Contemporary Theories of Knowledge*. Rowman & Littlefield.
- Rachels, Stuart. 2003. "A Defense of Two Optimistic Claims in Ethical Theory." *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 112 (1): 1–30.
- Rachels, Stuart, and Torin Alter. 2005. "Nothing Matters in Survival." *The Journal of Ethics* 9 (3/4): 311–30.
- Ridley, Matt. 1997. *The Origins of Virtue: Human Instincts and The Evolution of Cooperation*. 1st American ed edition. New York: Viking Adult.
- Rosen, G. 1994. "Objectivity and Modern Idealism: What Is the Question?" In *Philosophy in Mind*, 277–314. Dordrecht: Kluwer Academic.
- Ruse, Michael. 1986. *Taking Darwin Seriously: A Naturalistic Approach to Philosophy*. Basil Blackwell.
- . 2006. "Is Darwinian Metaethics Possible (and If It Is, Is it Well Taken)?" In *Evolutionary Ethics and Contemporary Biology*, 13–26. Cambridge: Cambridge University Press.
- Ruse, Michael, and Edward O. Wilson. 1986. "Moral Philosophy as Applied Science." *Philosophy* 61 (236): 173–92.
- Sayre-McCord, Geoff. 2015. "Moral Realism." Edited by Edward N. Zalta. *The Stanford Encyclopedia of Philosophy*. <http://plato.stanford.edu/archives/spr2015/entries/moral-realism/>.
- Schafer, Karl. 2010. "Evolution and Normative Skepticism." *Australasian Journal of Philosophy* 88 (3): 471–88.
- Scheffler, Samuel. 1994. *The Rejection of Consequentialism: A Philosophical Investigation of the Considerations Underlying Rival Moral Conceptions*. Oxford; New York: Clarendon Press.
- Shafer-Landau, Russ. 2003. *Moral Realism: A Defence*. Oxford; New York: Clarendon Press.
- . 2007. "Moral and Theological Realism: The Explanatory Argument." *Journal of Moral Philosophy* 4 (3): 311–29.

- . 2012. “Evolutionary Debunking, Moral Realism and Moral Knowledge.” *Journal of Ethics and Social Philosophy* 7 (1): 1–37.
- Sher, George. 2001. “But I Could Be Wrong.” *Social Philosophy and Policy* 18 (2): 64–78.
- Sidgwick, Henry. 1907. *The Methods of Ethics*. 7th ed. London: MacMillan & Co.
- Sinclair, Neil, and Uri D. Leibowitz. 2016. “Introduction: Explanation in Ethics and Mathematics.” In *Explanation in Ethics and Mathematics: Debunking and Indispensability*, edited by Uri D. Leibowitz and Neil Sinclair. Oxford: Oxford University Press.
- Singer, Peter. 1974. “Sidgwick and Reflective Equilibrium.” *The Monist* 58 (3): 490–517.
- . 1982. “Ethics and Sociobiology.” *Philosophy & Public Affairs* 11 (1): 40–64.
- . 2005. “Ethics and Intuitions.” *The Journal of Ethics* 9 (3-4): 331–52.
- . 2006. “Morality, Reason, and the Rights of Animals.” In *Primates and Philosophers*, 140–60. Princeton, NJ: Princeton University Press.
- . 2011. *The Expanding Circle: Ethics, Evolution, and Moral Progress*. With a New afterword by the author edition. Princeton, NJ: Princeton University Press.
- Singer, Peter, and Katarzyna De Lazari-Radek. 2016. “Doing Our Best for Hedonistic Utilitarianism. Reply to Critics.” *Ethics and Politics* XVIII (1): 187–207. <http://www.openstarts.units.it/dspace/handle/10077/12711>.
- Sinnott-Armstrong, Walter. 2006. *Moral Skepticisms*. 1 edition. Oxford; New York: Oxford University Press.
- Skarsaune, Knut Olav. 2011. “Darwin and Moral Realism: Survival of the Iffiest.” *Philosophical Studies* 152 (2): 229–43.
- Sober, Elliott. 1985. *Nature of Selection: Evolutionary Theory in Philosophical Focus*. Cambridge, Mass: MIT Press.
- . 1994a. *From a Biological Point of View: Essays in Evolutionary Philosophy*. Cambridge England; New York: Cambridge University Press.
- . 1994b. “Prospects for an Evolutionary Ethics.” In *From a Biological Point of View*, 93–113. Cambridge: Cambridge University Press.
- Sober, Elliott, and David Sloan Wilson. 1998. *Unto Others: The Evolution and Psychology of Unselfish Behavior*. Cambridge, Mass: Harvard University Press.
- Street, Sharon. 2006. “A Darwinian Dilemma for Realist Theories of Value.” *Philosophical Studies* 127: 109–68.
- . 2008. “Reply to Copp: Naturalism, Normativity, and the Varieties of Realism Worth Worrying About.” *Philosophical Issues* 18 (1): 207–28.
- . 2009. “Evolution and the Normativity of Epistemic Reasons.” *Canadian Journal of Philosophy* 39 (sup1): 213–48.
- . 2016. “Objectivity and Truth: You’d Better Rethink It.” In *Oxford Studies in Metaethics*, 11:293–334. Oxford: Oxford University Press.

———. 2017. “Nothing ‘Really’ Matters, But That’s Not What Matters.” In *Does Anything Really Matter? Essays on Parfit on Objectivity*, 121–48. Oxford: New York: Oxford University Press.

Sturgeon, Nicholas. 1985. “Moral Explanation.” In *Morality, Reason, and Truth: New Essays on the Foundations of Ethics*, 49–78. Totowa, NJ: Rowman & Allanheld.

Taurek, John M. 1977. “Should the Numbers Count?” *Philosophy & Public Affairs* 6 (4): 293–316.

Terry, Q. C., Dr. 2011. *Golden Rules and Silver Rules of Humanity: Universal Wisdom of Civilization: An Integration of Moral Precepts From Philosophy, Religion, Science*. West Conshohocken, PA: Infinity Pub.

Tersman, Folke. 2008. “The Reliability of Moral Intuitions: A Challenge From Neuroscience.” *Australasian Journal of Philosophy* 86 (3): 389–405.

———. 2016. “Explaining the Reliability of Moral Beliefs.” In *Explanation in Ethics and Mathematics. Debunking and Dispensability*. Oxford: Oxford University Press.

Thurow, Joshua C. 2011. “Does Cognitive Science Show Belief in God to Be Irrational? The Epistemic Consequences of the Cognitive Science of Religion.” *International Journal for Philosophy of Religion* 74 (1): 77–98.

Trivers, Robert L. 1971. “The Evolution of Reciprocal Altruism.” *The Quarterly Review of Biology* 46 (1): 35–57. <http://www.jstor.org/stable/2822435>.

Vavova, Katia. 2014. “Debunking Evolutionary Debunking.” In *Oxford Studies in Metaethics*, 9:76–101.

———. 2015. “Evolutionary Debunking of Moral Realism.” *Philosophy Compass* 10 (2): 104–16.

———. 2016. “Irrelevant Influences.” *Philosophy and Phenomenological Research*, May.

Vogel, Jonathan. 2007. “Subjunctivitis.” *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 134 (1): 73–88.

Waal, Frans B. M. de. 1996. *Good Natured: The Origins of Right and Wrong in Humans and Other Animals*. 1 edition. Cambridge, Mass: Harvard University Press.

Wedgwood, Ralph. 2007. *The Nature of Normativity*. Oxford: New York: Clarendon Press.

White, Roger. 2010. “You Just Believe That Because....” *Philosophical Perspectives* 24 (1): 573–615.

Wielenberg, Erik J. 2010. “On the Evolutionary Debunking of Morality.” *Ethics* 120 (3): 441–64. doi:10.1086/652292.

Wielenberg, Erik J. 2016. “Evolutionary Debunking Arguments in Religion and Morality.” In *Explanation in Ethics and Mathematics: Debunking and Dispensability*. Oxford: Oxford University Press.

Wilkins, John S., and Paul E. Griffiths. forthcoming. "Evolutionary Debunking Arguments in Three Domains: Fact, Value, and Religion." In *A New Science of Religion*, edited by James Maclaurin Greg Dawes. Routledge.

Wilson, James Q. 1993. *Moral Sense*. New York; Toronto; New York: Free Press.

Woods, Jack. 2016. "Mathematics, Morality, and Self-Effacement." *Nous*.

Wright, Robert. 1994. *The Moral Animal: Why We Are The Way We Are: The New Science of Evolutionary*. New York: Pantheon