Article

Concerning Darwinism

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Abstract

Darwinism has become an encompassing theory, leaving the confines of science and accounting for all aspects of life. Such an outlook entails important consequences for the evaluation of life. In particular, organisms are considered mere means for species' preservation and development, while reason is no special faculty, but rather an outgrowth of functions that are rudimentarily present in animals. Darwinism cannot, for that reason, be said to be 'true', but if Darwinism is the correct view, the implications for man are grave, no purpose or meaning of life being discernable. Darwinists are accordingly faced with the question why they continue their inquiries.

Keywords

Darwinism, nihilism, reductionism, Platonism

Introduction

Charles Darwin's influence has become so great that 'Darwinism' has become a scientific paradigm. In this article, the merits of a specific interpretation of Darwinism, which I will refer to as 'comprehensive Darwinism', are explored, in order to be able to determine whether it can be maintained consistently. Comprehensive Darwinism is not a position devised by me; I think it reflects an interpretation that is in line with what is propagated elsewhere (Dennett, 1995). The main question is what comprehensive Darwinism consists of and what its consequences are for those who adhere to it.

In the section 'Darwinism is Platonism', I will inquire the position of individual entities (organisms), if comprehensive Darwinism is accepted. The section 'Darwinism is Reductionism' is concerned with the position of man in nature and with the question whether he can claim a special position in that regard. The observations culminate in the section 'Darwinism is Nihilism', in which the consequences of comprehensive Darwinism are expounded.

First of all, it needs to be clear what 'comprehensive Darwinism' means. The best way to do so may be to contrast it with scientific Darwinism, that is, the theory that claims, on the basis of Darwin's premises, with important amendments, that life has evolved from simple organisms to the variety and complexity of species that exists today.[1] Comprehensive Darwinism comprises this theory and extrapolates it to the theory that accounts for all aspects of life: no mysteries or an additional 'meaning of life' are to be sought after. Hereafter, 'comprehensive Darwinism' is equivalent to 'Darwinism'; when

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scientific Darwinism is meant, the adjective 'scientific' will indeed be used. The title of this article can, accordingly, be read as 'Concerning Comprehensive Darwinism'.

I am not myself an adherent of Darwinism, as will be clarified in the course of the article. I do regard *scientific* Darwinism as a successful period of 'normal science', or a 'paradigm', to borrow a phrase and concept from Kuhn (1988, p. 10). Scientific Darwinism's position may be compromised upon the encounter of new data or insights as yet unimaginable, so that it, as any scientific enterprise, must be approached critically; '[…] it is only during periods of normal science that progress seems both obvious and assured' (ibid., p. 163). Among those who reflect on scientific Darwinism, some display little doubt with regard to the validity of its claims,[2] others expressing some scepticism (Dawkins, 2004, p. 81).

'Teleology' can be taken in many ways. For example, Ayala distinguishes between artificial teleology, exhibiting purposeful actions or objects, and natural teleology, in which natural processes are involved that do not result from a conscious design (Ayala, 2004, p. 66). Importantly, teleology that consists in the organisms' persistence because of their structure, which may be dubbed 'internal teleology', must be distinguished from teleology in the sense that organisms' lives have a purpose beyond their mere persistence; the latter can be called 'external teleology'. Internal teleology displays, then, nothing more than a process that may be either positive or negative. Only external teleology answers the question whether life is to be considered positive or negative.

There seems to be a basic given, only marginally questioned or criticized, that it is better to live than not to live, a silent axiom of life. Darwinism, it will be shown, replaces this axiom by its opposite. Scientific Darwinism exhibits internal teleology, but not necessarily external teleology (although it is compatible with it), whereas Darwinism presents a clear answer to the question whether external teleology exists: it doesn't.

Darwinism is Platonism

The title of this section may appear strange. Indeed, Darwinism and Platonism may in important respects be considered to contradict each other. Hence, I will first briefly expose the differences between their accounts. In *Timaeus*, a teleological account is presented, explaining why the world is the way it is: it has been created by the Demiurge (Plato, 1963b, 28a). Plato advances that living things must exist in order for the universe to be completed (ibid., 41b); the good is beautiful and the beautiful displays regularity (ibid., 87c). One may, at a more fundamental level, wonder why the universe exists at all. This is because the Demiurge has willed all things to be good; any imperfection has been excluded and order has been created (ibid., 30a).

Such an explanation is absent from Darwin's major works. Of course, Plato's account is an encompassing one, whereas Darwin focuses on the living things and their development, but the divergence in their perspectives is clear. Furthermore, Darwin points out that the sometimes outward beauty of nature should not distract from the ever ongoing struggle for life[3]; '[…] Natural Selection, or the Survival of the Fittest, does not necessarily include progressive development—it only takes advantage of such variations as arise and are beneficial to each creature under its complex relations of life.'[4]

Darwinism can, however, be considered to be Platonism if another crucial aspect of Plato's philosophy is considered, viz., his theory of Forms. There is no agreement on how to interpret this theory, and the discussion is complicated further by Plato's critical examination of his own theory (Plato, 1956, *passim*).

Still, it seems at least clear that general notions or patterns rather than individual instances, which can only be understood in their light, are his focus, exemplified by the Equal as the explanation why individual things are conceived to be equal (Plato, 1963a, 74a) and the Beautiful as the exemplar for beautiful things (ibid., 100c).

A similar pattern, I will argue, is manifested in nature, according to Darwinism. First of all, the terminology must be clear. In nature, individuals or, alternatively, organisms are manifestations of species. As for the instances, it is difficult to unambiguously establish the meaning of 'individual' (Gould, 2002, pp. 597, 598). I will, following Gould (2002, p. 601), use the term 'organism' to designate particular beings (such as a specific cat, mouse or man or woman). The term 'species' is intricate. It is the covering notion under which organisms can be rubricated but it can, confusingly, also be used as a *special* case vis-à-vis the genus, a classification at a higher level. The names of the classifications are not important for the present discussion; I will not needlessly complicate matters and only speak of organisms and species.

Clearly, it would, with Darwin's theory in mind, be incorrect to hold that species are stable entities; they continue to develop (Rieppel, 2009, p. 41). Furthermore, it would be hard to maintain that the categories of species reflect reality; they are man-made, resulting from empirical, biological inquiries. As Darwin puts it: '[…] I look at the term species as one arbitrarily given, for the sake of convenience, to a set of individuals closely resembling each other, and […] it does not essentially differ from the term variety, which is given to less distinct and more fluctuating forms.'[5] Additionally, there is no absolute demarcation between species and subspecies.[6] The hammerhead shark (*Sphyrna*) can serve as an example. If it is a subspecies of the shark, the further distinctions (e.g., the great hammerhead [S*phyrna mokarran*]) must be considered subsubspecies, and perhaps zoologists will eventually find criteria to accomplish a further subdivision.

The observations just made—species are ever fleeting and the species categorizations are not representations of reality—conflict with a Platonist model of thought, just as the lack of teleology in Darwinism hinted at in the introduction and expounded in the section 'Darwinism is Nihilism'. What, then, is the Platonism in Darwinism? This will be demonstrated by a response to the question why organisms exist. Darwin speaks of natural selection as being beneficial for organisms (cf. *supra*, note 4), but it seems more adequate to say that the benefit should exist for the species. After all, a (steady) progression takes place vis-à-vis the organism's environment (taken broadly, including other organisms), which also progresses. In fact, one may wonder if 'progression' is the right notion to use here; if on the basis of the change, the organism can cope with its circumstances equally well as its ancestors could with theirs, no advantage is realized for it; it has merely specialized. If a predator has evolved certain skills, the prey, if it has subsisted, must have had an advantage to compensate this. There is, then, an arms race of skills, without an accompanying progression, if the whole is considered.

The organisms perish, but the 'fittest' manage to procreate, thus contributing to perpetuating—and gradually altering—the species. Their existence consists, simply put, in surviving and breeding. Life is (usually) dire with, in the case of the animals, predators perpetually pursuing prey; success can mean a short interval of repose, but the next challenge is never far away. The predator's failure to succeed means a slow death for it; if the prey, conversely, is unable to escape, it suffers, depending on the situation and the species, a slow or quick death.

Darwin himself, although he takes this struggle seriously, has a relatively optimistic outlook: 'When we reflect on this struggle, we may console ourselves with the full belief, that the war of nature is not

incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy, and the happy survive and multiply.'[7] Still, if one takes the solicitudes of life seriously, one must consider a view such as Schopenhauer's. His is a system of thought according to which 'the principle of the existence of the world is expressly a groundless one, namely, blind will to life, which, as *thing in itself*, cannot be subject to the principle of reason, which is merely the form of the representations and by which alone each Why is justified'.[8]

Schopenhauer speaks of a being's essence consisting in a (blind) will to life (Schopenhauer, 1844/1949, Book 4, chap. 41, p. 532). This outlook is reflected in nature's organization, and the Platonic simile can be encountered here. As Schopenhauer puts it: 'That which, considered as a merely objective image, as a mere shape and consequently exalted from time and from all relations, is the Platonic *Form*, is, taken empirically, and in time, the *species*, or *sort*: this is therefore the empirical correlate of the Form.'[9] It is the Form or the species in which the will to life manifests itself. The organisms perish, but the species subsists; it is no surprise that Schopenhauer observes a parallel with Plato's thoughts here, again (Schopenhauer, 1844/1949, Book 4, chap. 41, pp. 552, 553).[10]

Importantly, the species is thought to be the most immediate objectification of the will to life, so that the essence of both the animals and man lies in the species (Schopenhauer, 1844/1949, Book 4, chap. 41, p. 554; Book 4, chap. 42, p. 584). This is, in line with Schopenhauer's bleak perspective, deemed negative and indeed, from the point of view of the organism, anti-teleological:

> The Will to life manifests itself with regard to the organism as hunger and a fear of death; with regard to the species as a sex drive and passionate care for the offspring. In accordance with this we find nature, which is free from this delusion of the individual, just as caring for the preservation of the sort as it is indifferent towards the demise of the organisms: these are constantly mere means, while the former is its goal.[11]

This is exemplified by the self-sacrifice displayed by an organism to save its young, so that the species may endure (Schopenhauer, 1844/1949, Book 4, chap. 42, p. 590). Nature's conceit is the instinct implanted in the organism (ibid., Book 4, chap. 44, p. 616).

The course of nature just described is, of course, an extrapolation from Darwin's theory. Darwin himself does not draw such pessimistic conclusions, pointing merely to the strife of the queen bee with the young queens as something that is '[…] for the good of the community […].'[12] It must be reminded here that (*comprehensive*) Darwinism is at stake here: *scientific* Darwinism leaves open other interpretations, compatible with (in the end) optimistic views on life.

Darwinism is Reductionism

Reason has become man's distinguishing feature vis-à-vis the rest of nature. It is not his strength, speed or another physical distinction that gives him an advantage to survive, but rather the ability to use technology (including means such as fire in 'primitive' circumstances) to adapt the environment to his needs and desires. This has meant a specialization to a degree unseen elsewhere in nature, demonstrated by the ever greater need to cooperate. A number of animals cooperate too, but this usually does not lead to specialization *within* the species, as is the case with man, whether one (fully) attributes this to innate factors or not.

Another consequence of reason's special role is that the physical advantages may wane; one no longer needs to protect oneself against animal aggressors (since one may utilize weaponry if necessary and lives in a house that provides ample refuge). The same applies to man's position as the aggressor: a need to hunt for food exists now only in underdeveloped regions; in the 'civilized' countries, complete industries have been established, to such a degree that one can even argue that animals need protection from humans, so that the survival of man vis-à-vis the animals is not at stake,[13] and in fact, by contrast, the extinction of some species may be attributed to man. In any event, according to comprehensive Darwinism, the existence of reason is to be explained in basically the same way as that of physical traits found in man and the animals, though its development may be granted to have been relatively complex.

Reason is obviously a remarkable faculty; of course, since man is himself a being endowed with reason, his evaluation of it is not unprejudiced. In any case, the present article can presumably only be understood by reasonable beings in the first place. An important proponent of a special role for reason is Kant. Keeping in mind the difference between the theoretical and the practical use of reason (Kant, 1908, Introduction, pp. 174–176), reason is crucial in two, related, respects for him. On the one hand, the notion of a final end ('Endzweck') is a notion of practical reason (ibid., § 88, pp. 454–456). The dignity to be happy is reserved for those that act morally (ibid., § 87, p. 450). A moral cause of the world is needed in order to posit a final end: the existence of God must consequently be supposed (ibid.); a teleology cannot be thought without an intentional, effective highest cause ('eine absichtlich-wirkende oberste Ursache') (ibid., § 75, p. 399). On the other hand, it is this same reasonable creature that is the final cause. As a noumenal being it is the highest good in the world (ibid., § 84, p. 435); 'Of man (and just as well of every reasonable being in the world), it cannot be inquired further why (to what end) he should exist.'[14]

The special position ascribed to man on the basis of his reason is undermined by Schopenhauer's analysis of what he considers essential in man and the animals. For Schopenhauer, both man and the animals have the ability to understand ('Verstand'), since they all grasp objects (Schopenhauer, 1818/1965, Book 1, § 6, p. 24). There are obvious differences in their behaviour, but they share a core: 'The animal senses and observes; man in addition thinks and knows; both will.'[15] The will defines man (Schopenhauer, 1818/1965, Book 4, § 55, p. 345). As for reason, there is no clarity what it means (ibid., Book 1, § 8, p. 45).

Most importantly, the will determines man's actions (ibid., Book 2, § 21, p. 131); knowledge originates in the will (ibid., Book 2, § 27, p. 181). This seems correct: in the end, reason can aid in accomplishing an objective, but it is difficult to comprehend how it could *determine* the act. There seem no criteria to act that reason can decide, in contradistinction to the will. Of course, one can be said to act reasonably, for example, by being able to diminish certain urges, but reason functions as an aid here rather than as the originator.

There is a realm of reflection that ('normal') human beings have at their disposal and that animals lack.[16] It is a pivotal question for Darwinism whether reason is a special quality; the alternative is that there is only a gradual difference between the various capabilities, with man's reason as the most potent of all. Darwin himself, in any event, has the latter option in mind: '[…] there is no fundamental difference between man and the higher mammals in their mental faculties.'[17] '...[T]he difference in mind between man and the higher animals, great as it is, certainly is one of degree and not of kind.'[18] In that case, man cannot claim a special role compared to the rest of nature. (As I intimated earlier, man is prejudiced

when he evaluates reason, since he is himself the reasonable being—and therefore the only being[19] to do so; a cheetah or peregrine falcon is presumably unable to marvel at its own speed.)

Reason is, then, only an instrument for survival; no insights into the truth or the nature of reality, whatever one may want this to mean, are to be expected. Reason is merely useful for surviving in a certain way. If one is not, compared to the animals, particularly fast, strong or endowed with acute senses, reason serves as a means to devise (compensating) artificial tools. In 'primitive' circumstances, the ability to create fire or make utensils to serve as weapons is obviously useful and the better one knows how to do this, the greater the advantage, but this does not point to an insight into the nature of reality; present-day (Western) society is complex, but someone can still be considered merely advantaged in comparison with other people if he knows how to use his reasoning powers, in whatever situation he competes with them.

If this is indeed Darwinism's explanation of reason, it refutes itself epistemologically. After all, if the reasonable being that concludes to Darwinism's truth (again, whatever one may take 'truth' to be) only does so on the basis of reason as a means to survive rather than as a faculty to establish the truth, Darwinism itself is not the truth. There is, in that case, no 'objective' standard (or any standard) to determine this, let alone that Darwinism would be entitled to claim this role. Consequently, if Darwinism is consistent, it cannot exist: it reduces the very faculty required to found its truth to an instrument that lacks the ability to perform this task.[20]

The reductionism of reason is not the only deleterious aspect. The final section will undermine its position from another viewpoint.

Darwinism is Nihilism

The section 'Darwinism is Platonism' addressed the primary role in life for the species, for the preservation of which the actual organisms make sacrifices, be it consciously or not. The section 'Darwinism is Reductionism' argued that Darwinism downplays reason's claims to achieve an insight into reality, insisting that it is rather a mere means of survival. The outcomes hitherto achieved are bleak, but Darwinism has not been shown to be incompatible with the existence of a meaning of life. This section will do that.

Nihilism is, in line with Nietzsche's analysis, essentially the situation in which no end to life and no answer to the question 'why' can be found (Nietzsche, 1970, 9 [35], p. 14); no truth or 'true' world exists (ibid., 9 [35], p. 15; 9 [41], p. 18). Darwin is no nihilist, as far as can be gathered. The (value and) purpose of life is not a crucial issue for him, his theory concentrating rather on the scientific aspects of life. Besides, he perceives no conflict between his theory and religion.[21] He seems to take a cautious stance; in any event, God's influence is not demonstrated in nature: '[…] many naturalists […] believe that [the Natural System] reveals the plan of the Creator; but unless it be specified whether order in time or space, or both, or what else is meant by the plan of the Creator, it seems to me that nothing is thus added to our knowledge.'[22]

As for the interpretation of biological findings, Darwin speaks of variations rendering profits to organisms.[23] Darwin himself is, then, no Darwinist. Nor is Schopenhauer, but for another reason: science does not reach a final goal, nor can it provide a complete explanation, since it does not reach beyond the level of representations (Schopenhauer, 1818/1965, Book 1, § 7, pp. 33, 34). His analysis of life is

relevant, however, for Darwinism. The nihilistic stance is expressed, inter alia, as follows: 'every single act has a goal, but the entire will has none.'[24]

Willing is characterized negatively: 'Each *volition* originates from a want, therefore from a lack, therefore from suffering'[25] and all life is suffering (Schopenhauer, 1818/1965, Book 4, § 56, p. 366). It is difficult to deny this; in fact, this can be deemed virtually tautological (if 'suffering' is taken broadly, including vehement experiences but not being limited to these). The case is worst for man: as a reflective being, he is not merely, as the animals, concerned with the present, but worries about the future and contemplates the past, hence suffering more than they do (ibid., Book 1, § 8, p. 43). It is difficult to see how Schopenhauer would be able to come to his insights, which would require an isolation, the realm of reflection mentioned in the section 'Darwinism is Reductionism' being independent of the will, be it ever so minor, to be able to realize that the deceit takes place (at other times than those of such reflection).

It is not necessary to dwell on this, considering the topic of this section. So I will conclude this short exposition of Schopenhauer with what life's lack of meaning entails. The silent axiom of life presented in the introduction is turned on its head: 'There is only *one* inherent error, and it is this, that we exist in order to be happy.'[26] Acknowledging this error, if one contemplates, there will be no incentive to prolong one's life (Schopenhauer, 1844/1949, Book 4, chap. 41, p. 531). Suicide is not an option (Schopenhauer, 1818/1965, Book 4 § 54, p. 331); 'death is no absolute annihilation'.[27] This line of thought is connected with Schopenhauer's metaphysics, which does not need to be dealt with here. In any event, his solution is asceticism (Schopenhauer, 1818/1965, Book 4, § 68, p. 470).

There are two ways to try to escape the nihilism that ensues from Darwinism. The first is to deny its truth, whether one accepts *scientific* Darwinism or not, and propose that there *is* a purpose towards which life is directed. Ruse says:

> We treat organisms—the parts at least—as if they were manufactured, as if they were designed, and then we try to work out their functions. End-directed thinking—teleological thinking—is appropriate in biology because, and only because, organisms seem as if they were manufactured, as if they had been created by an intelligence and put to work. The argument to organized complexity, the argument to design-like complexity—truly, this is what is at the center of Darwinian evolutionary biology. If one is thinking just in terms of science, then it is virtually tautological that Darwinism holds the key to our solution. The design of organisms is to be understood in terms of their survival and reproduction, as Darwin insisted. And the strange causal connections come out because of Darwin. Something is of value because it leads to the end of survival and reproduction, but this survival and reproduction are in turn the reason why it exists. (Ruse, 2003, pp. 268, 269)

It is not clear how such a view could lead to an escape of nihilism. If all that is at stake is organisms' survival and reproduction, no content (positive or negative) is given. The question remains, in other words, to *what* end organisms would survive and reproduce. There is not something inherently positive in such a process (and it may even be argued to be negative, in the light of what has been said). Moreover, if the organism's survival and reproduction are indeed the reasons why it exists, existence must be presupposed to be something positive (rather than something neutral or negative), which cannot, of course, be convincing: if this position can be upheld at all, it must be supported by a view that makes the positive aspects clear. One cannot simply put forward a purposeful picture of life (and thus negate nihilism) by positing the mere presence of life as something purposeful, since this would be begging the question.

To be sure, Ruse does not speak of a purpose here, but rather of the process of life, which is said to be indicative of design, but further on in the same book, he argues for '[…] a theology of nature […] that sees and appreciates the complex, adaptive glory of the living world, rejoices in it, and trembles before it' (Ruse, 2003, p. 335). The question where the purpose is to be found is evaded here. The fact that the living world is complex is not relevant, for there is no need for teleology to explain complexity,[28] and rejoicing in this world, or accepting its 'glory', seems misplaced: rejoicing is only possible if one takes pleasure or a purpose as one's standard—pleasure comes in limited supplies compared to pain and a purpose is not established—and the continuous demise and suffering of organisms for the continuation of the species seem little glorious, unless the species exist for a purpose (which has not been established).

The only viable strategy to escape Darwinism is to relativize the scientific import of scientific Darwinism and point to the origin of the universe as a feature that remains opaque (Ayala, 2004, p. 67). From the religious perspective, the crucial question, whether committing suicide is the optimal course of action, is answered in a non-nihilistic way: there is a purpose, and it is incumbent on man to remain alive in its pursuit (even though it may be unclear what this means). This can be presented negatively, in that one is punished if one ends one's life (so that it may, in fact, be argued that no more than a radical hedonic calculus, that is, a hedonic calculus applied not to the experiences in life but to life itself, is involved, on the basis of which the lesser of two evils is chosen). As Plato puts it, one should not commit suicide before an urging reason is provided by the gods, because otherwise one may be punished by them (Plato, 1963a, 62b, c). A more agreeable situation after one's death exists for good people than for the wicked (ibid., 63c), and the soul is immortal (ibid., 106e).

From a specifically Christian perspective, the same line of thought ensues (Augustine, 1959, Book 1, 17, pp. 246, 248; Book 1, 20, pp. 258, 260). The rationale behind this is clear: 'This, we say, this we assert, this we approve of in all ways, that, in order not to incur perpetual pains, no one should inflict voluntary death upon himself by fleeing temporal ones.'[29] It seems that avoiding pain in the hereafter is the reason for staying alive in difficult circumstances. This argument is a moot point, of course, if Darwinism is accepted.

The second alternative to Darwinism that can be explored lies in attributing a value to life itself. Even if one accepts that there is no purpose beyond life as it is known, one can claim that it must lie in this (immanent) life. Nietzsche is an important purveyor of such a view, pleading for 'new values' ('neue Werthe') (Nietzsche, 1970, 11 [411], p. 432). His providing an alternative to the position that a purpose needs to be found in a hereafter (which he considers a sign of decadence[30]) is not based on taking Darwin's theory seriously (he opposes him, at least in part[31]), so it is worthwhile to approach the matter from a Darwinian standpoint. Dennett ponders:

> Why couldn't the most important thing of all be something that arose from unimportant things? Why should the importance or excellence of *anything* have to rain down on it from on high, from something more important, a gift from God? Darwin's inversion suggests that we abandon that presumption and look for sorts of excellence, of worth and purpose, that can emerge, bubbling up out of 'mindless, purposeless forces'. (Dennett, 1995, p. 66)

The problem here is that it is difficult to find these 'sorts of excellence, of worth and purpose'. A religious perspective has the clear disadvantage that it must include elements that cannot reasonably be grasped (otherwise there would be science rather than religion or faith) and may even conflict with reason. Since a criterion is lacking to opt for a specific religion (if a religious stance is to be taken at all), I do not propose—at this time—to exchange Darwinism for a religion. Still, whether or not one takes a religious

position, at least a purpose can be propounded on the basis of religions' tenets.[32] Foregoing such a position, one is forced to find a purpose in life itself. Obviously, not everything qualifies as purposeful, because otherwise the term would lose its (semantical) meaning (a danger that lurks in any event): purposeful matters must be contrastable with others. The problem that subsequently presents itself is that a criterion to find purposeful matters appears to be lacking from a Darwinian point of view.

To be sure, Dennett (1995, p. 82) says: 'Darwin's dangerous idea is reductionism incarnate, promising to unite and explain just about everything in one magnificent vision.' This is another sort of reductionism than the one expounded in the section 'Darwinism is Reductionism', which focused on reason's import. Conversely, Dennett points to the absence of a purpose in the (religious) sense according to which a purpose is not to be found in this life. Importantly, Dennett does not deem reductionism to be negative (Dennett, 1995, p. 82). However, the alternatives that are mentioned, namely, '[…] Life, or Love, or Goodness, or Intelligence, or Beauty, or Humanity' (ibid., p. 18), do not suffice. 'Love' and 'Goodness' are words that may be said to lack both a 'Meaning' (a meaning of life) and a (semantical) meaning, or can at least be reduced themselves in terms of pleasure, and life is not itself something positive or negative (unless one adopts Schopenhauer's thinking and qualifies it negatively), but rather a basis for positive or negative experiences, just as intelligence is a means that can be used positively and negatively. Beauty remains, but if an opaque position is to be avoided, this must be reduced to pleasure, which will be dealt with in the following.

The question is pertinent, then, whether Dennett takes Darwinism seriously enough when he inquires what remains in the wake of the metaphorical 'universal acid' that eats through anything (ibid., p. 63). He states that it is not fatal, and in fact has a purifying effect: 'The "miracles" of life and consciousness turn out to be even better than we imagined back when we were sure they were inexplicable' (ibid., p. 521). However, this underestimates the fact that *nothing* remains to be a purpose, so that the self-professed 'love of the world' (ibid., p. 82, note 10) would have to be based on pleasure. After all, the only thing one can discover if the world is considered in this way is how the world—including the living organisms—functions, merely satisfying a curiosity without reaching any 'greater' insights. If this life is really all there is, why should one be occupied with any scientific or philosophical matter? I do not mean here questions whose resolutions have a directly observable practical import, such as those in the field of medicine (survival or a reduction of pain is involved here). Those issues which lack such a dimension—or in which it is at least not intended—such as some of the inquiries in theoretical physics, mathematics and philosophy, are not of interest, from a Darwinian point of view, to find out what life would really be about, because it is already clear: there is no additional dimension besides the one that the sciences (supposedly) lay bare.

This means that such inquiries are, in fact, no more than puzzles to be solved for intellectual gratification, essentially on a par with crossword puzzles, and only qualitatively different from them. The proof of Fermat's last theorem (Wiles, 1995), for example, only constitutes a more worthwhile discovery than the solution of a relatively simple puzzle because of the difference in accomplishment (the qualitative difference), not because it would produce an insight into reality. Besides, even if such an insight is realized, the conclusion in the section 'Darwinism is Reductionism' must be reminded: reason is, for Darwinism, only a faculty that optimizes man's survival; finding scientific solutions is only valuable (and the discoverers are only lauded) on that basis.

The aspect of beauty referred to earlier can be analyzed in the same way: one appreciates beautiful things because they are pleasurable. This is not problematic as such: If one experiences more pleasure than pain, there is a sufficient reason to keep on living (until the moment arrives that the pain sensations

exceed the pleasures). Yet such a life seems necessarily shallow without the aureole of the sciences as the purveyors of a truth that discloses a 'higher' purpose than those one is acquainted with—if the latter can be deemed purposes at all. The conclusion of the section 'Darwinism is Reductionism' is again pertinent: Darwinism means that one is trapped within one's own conceptual domain, just as, presumably, the animals are confined to theirs. The accumulation of scientific facts and theories is beneficial in an instrumental way (e.g., medicine) or because one enjoys reaching an insight, though one wonders if such enjoyment is not greatly reduced by this conclusion.

The pleasure of this insight and the other pleasures of life must be balanced against the pains one suffers; if there is more pain than pleasure, it would be prudent to commit suicide. This radical hedonic calculus is perhaps rather abstract (it seems difficult to find a common standard against which to measure the various feelings), but this is the only course of action a Darwinist can follow if he is to take his theory seriously. Perhaps there are lives that can withstand the radical hedonic calculus, although I can hardly imagine such a life, if all experiences are seriously taken into account. It is, in the end, only the individual that can determine this for himself or herself, but it seems that Darwinists are bad economists.

Either Darwinism reaches its peak through the insight that one should[33] commit suicide, or Darwinism is incorrect,[34] either because those who propagate it have failed to comprehend that suicide should be committed—those who *have* comprehended this have already done so—or because another, less reductionistic, approach is taken to be correct. (The latter approach might also propagate committing suicide, by the way, but that is not the issue here.) Darwinism would then, ironically, consist in the demise rather than the survival of the fittest, if one understands by that those who have the greatest insights.[35]

Conclusion

Darwinism shows how organisms contribute to the development of species. Throughout this article, I have pointed to the detrimental aspects of life for the organisms. The Platonic simile is clear in the prevalence of the species in that organisms are means to their specialization. The likeness to Platonism is not so great that speaking of the development leading to species' perfection would be pertinent, as this implies a final end, which is not easy to reconcile with Darwinism. A definite difference with Platonism is clear from Darwinism's account of reason, which is considered a means to survive rather than a faculty to grasp (part of) reality's structure, thereby supposedly constituting a domain isolated from the grasp nature has on other organisms than man.

The consequence of Darwinism for man must be self-inflicted death as soon as he concludes that there is more pain than pleasure in life, since a refuge in a meaning of life is ruled out a priori. This does not mean that one should necessarily end one's life. Darwinism is, after all, not proven to be correct (leaving aside other considerations than Darwinism's truth, on the basis of which such a course of action may also be advisable).

In conclusion, this article may be one of the last contributions that can be written about Darwinism (scientific Darwinism can accrue additional literature, of course), except to clarify what was pointed out here. Consistent Darwinism is self-refuting, both epistemologically and practically. That this result will immediately be accepted wholeheartedly is, however, not to be expected, given Darwinism's influence, and the absence, it must be admitted, of a viable alternative, 'meaning of life' remaining without a content, at least for now.

Notes

1. R. Dawkins (2004, p. 81): '*Core Darwinism* […] is the minimal theory that evolution is guided in adaptively nonrandom directions by the nonrandom survival of small random hereditary changes.'
2. D. Dennett (1995, pp. 47, 48), although the author admittedly presents some (albeit slight) caveats there.
3. Darwin, *The Origin of Species*, chap. 3, pp. 51, 52 (original edition, p. 49).
4. Ibid., chap. 4, p. 105 (original edition, p. 98).
5. Ibid., chap. 2, p. 43 (original edition, p. 42).
6. Ibid., pp. 42, 43 (original edition, p. 41).
7. Ibid., chap. 3, p. 64 (original edition, p. 61).
8. '[…] das Princip ihres [die Welt] Daseyns ausdrücklich ein grundloses ist, nämlich blinder Wille zum Leben, welcher, als *Ding an sich*, dem Satz vom Grunde, der bloß die Form der Erscheinungen ist und durch den allein jedes Warum berechtigt ist, nicht unterworfen seyn kann' (Schopenhauer, 1844/1949, Book 4, chap. 46, p. 665).
9. 'Was […], als bloß objektives Bild, bloße Gestalt, betrachtet und dadurch aus der Zeit, wie aus allen Relationen, herausgehoben, die Platonische *Idee* ist, das ist, empirisch genommen und in der Zeit, die *Species*, oder *Art*: diese ist also das empirische Korrelat der Idee' (Schopenhauer, 1844/1949, Book 3, chap. 29, p. 417).
10. Darwin's theory adds to this that species themselves change gradually.
11. 'Der Wille zum Leben manifestirt sich in Beziehung auf das Individuum als Hunger und Todesfurcht; in Beziehung auf die Species als Geschlechtstrieb und leidenschaftliche Sorge für die Brut. In Uebereinstimmung hiemit finden wir die Natur, als welche von jenem Wahn des Individuums frei ist, so sorgsam für die Erhaltung der Gattung, wie gleichgültig gegen den Untergang der Individuen: diese sind ihr stets nur Mittel, jene ist ihr Zweck' (Schopenhauer, 1844/1949, Book 4, chap. 41, p. 554).
12. Ch. Darwin, *The Origin of Species*, chap. 6, p. 172 (original edition, p. 164).
13. The survival of man vis-à-vis *himself* is another matter, with the worries of conflict or—conversely—overpopulation in mind.
14. 'Von dem Menschen […] (und so jedem vernünftigen Wesen in der Welt), als einem moralischen Wesen, kann nicht weiter gefragt werden: wozu (quem in finem) er existire' (Kant, 1908, § 84, p. 435).
15. 'Das Thier empfindet und schaut an; der Mensch *denkt* überdies und *weiß*: Beide *wollen*' (Schopenhauer, 1818/1965, Book 1, § 8, p. 44).
16. I must generalize here, and cannot account for the differences between the various animals; it is, furthermore, difficult to assess what results future evaluations may render with respect to the capacities of, inter alia (or '*inter alios*', if preferred), the bonobo, chimpanzee, orca and dolphin.
17. Darwin, *The Descent of Man*, p. 70 (original edition, p. 66).
18. Ibid., p. 130 (original edition, p. 126).
19. There is no need here to speculate on the existence of reasonable beings that may exist but have not been encountered (yet).
20. The upshot of being confined to the results one may reach on the basis of reason in the Darwinian sense may be that a Kantian strategy remains available, claiming that one does not know how reality is constituted and that some room may yet exist for a purpose, but this option is excluded, since Darwinism entails that a domain where this purpose is—allegedly—to be found is itself nonsensical, the notion of which is perhaps to be explained Darwinistically. The present article's reasoning is not affected by this conclusion, since it does not start from the Darwinian premises; the vagueness that is admittedly involved in the notion 'truth' must remain for now.
21. Darwin, *The Origin of Species*, chap. 15, p. 439 (original edition, pp. 421, 422).
22. Ibid., chap. 14, p. 380 (original edition, p. 365).
23. Ibid., chap. 3, p. 51 (original edition, p. 49); chap. 4, p. 79 (original edition, p. 75); chap. 4, p. 103 (original edition, p. 97).
24. '[…] jeder einzelne Akt hat einen Zweck; das gesammte Wollen keinen […]' (Schopenhauer, 1818/1965, Book 2, § 29, p. 196).

25. 'Alles *Wollen* entspringt aus Bedürfniß, also aus Mangel, also aus Leiden' (Schopenhauer, 1818/1965, Book 3, § 38, pp. 230, 231).
26. 'Es gibt nur *einen* angeborenen Irrthum, und es ist der, daß wir dasind, um glücklich zu seyn' (Schopenhauer, 1844/1949, Book 4, chap. 49, p. 729).
27. '[…] der Tod sei keine absolute Vernichtigung' (Schopenhauer, 1818/1965, Book 4, § 59, p. 383).
28. Unless internal teleology as hinted at in the introduction is involved, which does not, in contrast to the external variant, display a purpose. Complex processes may lead to unpleasant outcomes without a purpose being discernable; complexity and purposefulness are not to be confused.
29. 'Hoc dicimus, hoc asserimus, hoc modis omnibus adprobamus, neminem spontaneam mortem sibi inferre debere velut fugiendo molestias temporales, ne incidat in perpetuas […]' (Augustine, 1959, Book 1, 26, p. 276).
30. F. Nietzsche (1969), Götzen-Dämmerung, Die ‚Vernunft in der Philosophie', § 6, p. 73; Moral als Widernatur', § 5, p. 80.
31. For example, F. Nietzsche (1969), Götzen-Dämmerung, Streifzüge eines Unzeitgemässen, § 14, pp. 114, 115.
32. Though not in all religions; Hinduism can be said to propound, negatively, that the termination of suffering is the end (and 'end') of life.
33. This is not a 'moral' 'should'; the insight follows from prudential considerations.
34. This says nothing about the merits of scientific Darwinism, of course.
35. If the conclusion of the section 'Darwinism is Reductionism' is correct, such insights do not reflect a grasp of reality which would lead to this outcome, since reason is merely an instrument for survival. There is an internal conflict in Darwinism (next to the one pointed out in the section 'Darwinism is Reductionism'): since one would on the basis of reason continue to survive, Darwinism must—but cannot—explain why this result (reason urges man to end his life) appears.

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