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DID HAYEK COMMIT THE NATURALISTIC FALLACY?

BY
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I. INTRODUCTION

In promoting spontaneous orders—orders that evolve in a process of cultural evolution—as "efficient," "beneficial," and "advantageous," Friedrich A. Hayek (1899–1992) has often been attributed the belief that there is something desirable about them. For this reason, he has been accused of committing the *naturalistic fallacy*, that is, of trying to derive an "ought" from an "is." It appears that Hayek was quite aware of the charge, and vigorously disputed it: "I have no intention to commit what is often called the genetic or naturalistic fallacy" (1988, p. 27).

Taking his cue from such remarks, Bruce J. Caldwell, among others, has argued that Hayek in fact denied that evolved orders tend to be desirable. According to this reading, Hayek's theory of cultural evolution is a purely explanatory, not justificatory, device. Yet, in my view, Caldwell's interpretation is problematic. It finds only weak support in the texts, clashes with the interpretation of knowledgeable observers, and makes Hayek's writings on cultural evolution come across as careless or confused. Thus, we seem to face a dilemma: either Hayek committed the naturalistic fallacy, or his exposition of cultural evolution is seriously misleading.

In the present paper I wish to argue that the dilemma is false, and that Hayek in fact escaped both the fallacy and the confusion. First, I aspire to show that the naturalistic fallacy occasionally has been misconstrued, and that Hayek could defend the thesis that evolved orders are desirable without committing anything of the sort. Second, I develop an interpretation according to which Hayek in fact did maintain a weaker form of the thesis. Through a close reading of the relevant texts, I hope to show that my interpretation is better supported

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by the evidence, textual and otherwise, while being charitable enough not to accuse him of committing the naturalistic fallacy. The aim of the paper is not to trace the history of Hayek's thought, or to assess it, but merely to clarify the position he took on one important issue.

II. HAYEK ON THE CHARACTERISTICS OF EVOLVED ORDERS

Hayek consistently described spontaneously evolved orders in terms that are highly normatively charged. In the present section, I give a brief outline of Hayek's theory of cultural evolution, and discuss a number of passages in which Hayek seems to assert that there is something desirable about spontaneously evolved orders.

Hayek's discussion of spontaneous orders appears in the context of his theory of cultural evolution.[1] The order is a property of the group, and is said to be *spontaneous* if it has developed in a process of cultural evolution without conscious human intervention. In contrast, the order is said to be *artificial* if it has been rationally constructed and imposed on the group, as it were, from above. The order is produced jointly by the rules, norms, and practices followed by the individuals, and by the environment in which they live.[2] According to Hayek's theory, rules, norms, and practices evolve because natural selection operates on the order of the group. As he wrote, "cultural evolution is founded wholly on group selection" (1984, p. 318; cf. 1979, p. 202). More specifically: "The structures [orders] formed by traditional human practices are ... the result of a process of winnowing or sifting, directed by the differential advantages gained by groups from practices adopted for some unknown and perhaps purely accidental reasons" (1979, p. 155).

Since selection is guided by the differential advantages of different practices, Hayek often described the rules and orders of surviving groups as "efficient," "beneficial," "advantageous", and so on, and he emphasized that it is difficult or impossible to improve on such orders. As my thesis is supported by the prevalence and prominence of these quotes, and by their relative consistency over time, I cite them at some length.

Some of the quotes appear rather early in Hayek's work. In *The Constitution of Liberty*, for example, Hayek said that "it is unlikely that any individual would succeed in rationally constructing rules which would be more effective for their purpose than those which have been gradually evolved" (1960, p. 66). In the same work, Hayek approvingly quoted Alexander Macbeath (1888–1964), who wrote that "no institution will continue to survive unless it performs some useful function" (Macbeath 1952, p. 120; quoted in Hayek 1960, p. 433, n. 21).

Hayek's first thorough exposition of the theory of cultural evolution appeared in *Studies in Philosophy, Politics, and Economics* (1967). Here, as in many other places, Hayek quoted Alexander M. Carr-Saunders (1886–1966), who wrote that

[1]For historical perspectives on Hayek's theory of cultural evolution, see e.g. Caldwell (2000), Petsoulas (2001), and Angner (2002a).

[2]It remains unclear what, exactly, Hayek meant by terms like "rules," "order," "artificial," and "spontaneous." See Angner (2002b, p. 383) for a brief discussion of these issues. Yet, I trust the above definitions will suffice for our purposes.

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"Those groups practising the most advantageous customs will have an advantage in the constant struggle with adjacent groups" (Carr-Saunders 1922, p. 223; quoted e.g. in Hayek 1967, p. 67, n. 3). Carr-Saunders added that the traditions of a group may enable it to overcome groups with traditions that are "less valuable" (Carr-Saunders 1922, p. 417).[3]

Hayek further clarified that "the properties of the individuals which are significant for the existence and preservation of the group ... have been shaped by the selection of those from the individuals living in groups which at each stage of the evolution of the group tended to act according to such rules as made the group more efficient" (1967, p. 72). He concluded that "we are bound to explain the fact that the elements [i.e. the individual members of a group] behave in a certain way by the circumstance that this sort of conduct is most likely to preserve the whole" (1967, p. 77). The book also contains a lengthy discussion about the impossibility of improving on spontaneous orders (1967, pp. 91–93).

Hayek returned to these themes at many points in time. In the first volume of *Law Legislation and Liberty*, he wrote that "the term 'function' ... is an almost indispensable term for the discussion of those self-maintaining structures which we find alike in biological organisms and in spontaneous social orders" (1973, p. 28; cf. 1967, p. 70). He continued: "Society can thus exist only if by a process of selection rules have evolved which lead individuals to behave in a manner which makes social life possible," and added: "Such an order will always constitute an adaptation" (1973, p. 44). And he wrote:

> We shall see that it is impossible, not only to replace the spontaneous order by organization and at the same time utilize as much of the dispersed knowledge of all its members as possible, but also to improve or correct this order by interfering in it by direct commands. Such a combination of spontaneous order and organization it can never be rational to adopt (1973, p. 51).

In the second volume of the same work, Hayek claimed that "the maintenance of a spontaneous order of society is the prime condition of the general welfare of its members" (1976, p. 6). And in the third volume, he added: "That ... the inherited traditional rules ... should often be most beneficial to the functioning of society, is a truth the dominant constructivistic [socialist] outlook of our time refuses to accept" (1979, p. 162).

A few years later, in an essay called "The Origin and Effects of Our Morals: A Problem for Science", Hayek wrote:

> Group selection thus does not primarily choose what the individuals recognize as serving their own ends, or what they desire. It will elect customs whose beneficial assistance to the survival of men are not perceived by the individuals. The group thereby becomes dependent for the very survival of its increased numbers on the observance by its members of practices which they cannot rationally justify (1984, p. 324; cf. p. 328).

These quotes, whose prevalence and consistency over time is notable, suggest a

[3]Angner (2002a) argued that Carr-Saunders in fact was a significant source of inspiration for Hayek's thought on cultural evolution.

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reading along the following lines. There is something *desirable*, in an unambiguously normative sense, about orders that have evolved in a process of cultural evolution. At the very least, such orders tend to be more desirable than both artificial orders and combinations of artificial and spontaneous orders. Since we cannot improve on spontaneous orders by replacing them by artificial ones, a society based on spontaneous order—specifically, the spontaneous order of the free market—will be superior to any alternative. Not surprisingly, this reading has been adopted by a number of Hayek scholars. Martin de Vlieghere, for instance, wrote: "Hayek, however, maintained a third evolutionistic idea. In the course of history only those cultural attainments can survive and spread that are beneficial. So, the very longevity of an institution proves its value" (de Vlieghere 1994, p. 293; cf. Gray 1989, p. 98).

On this interpretation, Hayek's normative language should be read as normative, and the theory of cultural evolution implies that free market capitalism is superior to alternative arrangements. For convenience, I will refer to this reading of Hayek's theory as the (*strong*) *normative* reading, and to this argument for free market institutions as the *evolutionary* argument. The reading would account for Hayek's consistently normative language, his emphasis on the important functions served by evolved structures, and the alleged impossibility of improving on a spontaneous order. The interpretation would also explain Hayek's explicit desire to prove the superiority of free market institutions on purely scientific rather than ideological grounds, as when he wrote that the case for capitalism "rest[s] on purely intellectual issues capable of scientific resolution and not on different judgments of value" (1973, p. 6; cf. 1988, p. 7).

III. CALDWELL ON HAYEK AND CULTURAL EVOLUTION

Other Hayek scholars, however, have objected to the normative reading. In his paper on the emergence of Hayek's evolutionary thought, for example, Caldwell wrote that "the claim that Hayek fell into the naturalistic fallacy, that is, that he thought that the survival of an institution somehow guaranteed its optimality, is a misreading both of Hayek and of evolutionary theory, as Douglas Glen Whitman (1998) effectively demonstrates" (2000, p. 20, n. 1). In the article to which Caldwell referred, Whitman made the following case:[4]

> Among the most frequently repeated charges lodged against Hayek's theory of cultural evolution is that Hayek, like the Social Darwinists, has committed the Panglossian fallacy: [that] he has suggested or implied that social evolution must necessarily produce the best of all possible worlds . . . Hayek's theory can be faulted in a variety of ways, but Panglossianism is not one of them (1998, pp. 45–46).[5]

Since Hayek did not believe that cultural evolution guarantees that spontane-

[4]Since this article went to press, Whitman has informed me that he does not endorse the descriptive reading discussed in this section, but instead adopts what I later call the weak normative reading (personal communication).

[5]See Whitman (1998) and Denis (2002) for definitions and a more detailed discussion of Panglossianism in the context of Hayek's work.

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ously evolved orders are desirable, Caldwell continued, Hayek never endorsed an evolutionary argument in favor of free market institutions: "He also states up front that his analysis 'cannot prove the superiority of market institutions' ([Hayek] 1988, [pp.] 20–21), but only help us to understand how such an unpopular, but productive, set of institutions might emerge and survive" (2002, p. 298).

On this interpretation, to which I will refer as the *descriptive* reading, Hayek did not believe that evolved orders tend to be desirable, and he did not endorse an evolutionary argument in favor of free-market capitalism. According to this reading Hayek escaped the naturalistic fallacy since his theory of cultural evolution has no normative implications at all. Though the theory of cultural evolution serves to explain how market institutions developed, it does not serve to justify them. The argument derives its force from the fact that Hayek's terms—especially "efficient" and "optimal," though to some extent also "advantageous" and "beneficial"—may be used in perfectly descriptive senses. Though it is not clear to me how, exactly, Caldwell would account for the passages in which these terms appear, it is clear that he interprets Hayek's seemingly normative terms as convenient shorthand for something descriptive. Be that as it may, in the Caldwell view the theory of cultural evolution is a purely explanatory, not justificatory, device.

Caldwell and Whitman cited four passages in which Hayek apparently disputed the claim that evolved orders are desirable. If there are more than four such passages, we can assume that the ones quoted here are those that most strongly support the descriptive reading. Already in *The Constitution of Liberty*, Hayek asserted, "These considerations, of course, do not prove that all the sets of moral beliefs which have grown up in a society will be beneficial. Just as a group may owe its rise to the morals which its members obey ... so may a group or nation destroy itself by the moral beliefs to which it adheres" (1960, p. 67).

In *Law*, *Legislation*, *and Liberty*, he wrote: "The fact that law that has evolved in this way has certain desirable properties does not prove that it will always be good law or even that some of its rules may not be very bad" (1973, p. 88). And two of the quotes come from *The Fatal Conceit*, where Hayek wrote: "It would however be wrong to conclude, strictly from such evolutionary premises, that whatever rules have evolved are always or necessarily conducive to the survival and increase of the populations following them" (1988, p. 20). A few pages later, he added: "I do not claim that the results of group selection of traditions are necessarily 'good'—any more than I claim that other things that have long survived in the course of evolution, such as cockroaches, have moral value" (1988, p. 27). Caldwell (2000, p. 8) also cited a passage in which Hayek asserted that evolution does not guarantee that newly evolved orders will give us more satisfaction than the old (Hayek 1960, p. 41). This quote does not bear on the issue at hand, however, since Hayek never assumed that people in general would be particularly satisfied with the more desirable free-market order.

In my view, however, these quotes do not provide as much support for the descriptive reading as Caldwell seems to think. First, Andy Denis (2002, pp. 279–81) has pointed out that at least two of these quotes, when taken in context, are perfectly compatible with a normative reading. The third of the four quotes

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continues as follows: "Recognizing that rules generally tend to be selected, via competition, on the basis of their human survival-value certainly does not protect those rules from critical scrutiny. This is so, if for no other reason, because there has so often been coercive interference in the process of cultural evolution" (1988, p. 20).

Here, Hayek suggested that the main reason why the current order fails to be desirable is that people in the past have interfered with its development. In this case, presumably, it would be incorrect to characterize the order as a truly spontaneous one, and even on the normative reading non-spontaneous orders need not be desirable. Indeed, this passage leaves it open whether cultural evolution, when not interfered with, would ever produce undesirable outcomes. Similarly, after the second quote, Hayek explained that evolved law sometimes needs to be altered, and added that "the most frequent cause is probably that the development of the law has lain in the hands of members of a particular class" (1973, p. 89). Again, the main cause of undesirable orders appears to be past interference with the natural operation of cultural evolution. Thus, in at least two of the four quotes, Hayek does not unambiguously assert that truly spontaneous orders may fail to be desirable.

Second, two of the four quotes—and perhaps the most forceful—come from *The Fatal Conceit* (Hayek 1988), which is a source of questionable value. In fact, Caldwell himself has written that "*The Fatal Conceit* is a problematic book on a number of levels" (2000, p. 17). He said: "There are no footnotes, and parts of it seem cobbled together from Hayek's file cards or from bits and pieces of what Hayek had written elsewhere. But far more important, it is not clear how much of the book should be attributed to Hayek, and how much to [his editor W. W.] Bartley" (Caldwell 2000, p. 18).

Moreover, Caldwell despaired of ever knowing: "Nor is it likely that we will ever have an answer to that question, now that both of the principals are dead" (2000, p. 18). Similarly, Peter J. Boettke wrote that "the book is still filled with factual and intellectual errors which render the project extremely vulnerable to a fundamental critique" (1999, p. xxxiv, n. 21). If Caldwell and Boettke are right, many of the ideas expressed in *The Fatal Conceit* are erroneous, and may not be those of Hayek at all. Thus, we would do well taking quotes from this book with a grain of salt. It is quite possible that Bartley, consciously or not, misrepresented Hayek's position in various ways.

Furthermore, even if we do take *The Fatal Conceit* seriously, it does not unambiguously support the Caldwell position. Consider the passage on page 20, which continues as follows:

> Yet an understanding of cultural evolution will indeed tend to shift the benefit of the doubt to established rules, and to place the burden of proof on those wishing to reform them. While it cannot prove the superiority of market institutions, a historical and evolutionary survey of the emergence of capitalism (such as that presented in chapters two and three) helps to explain how such productive, albeit unpopular and unintended, traditions happened to emerge, and how deep is their significance for those immersed in the extended order (1988, pp. 20–21).

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This passage seems hard to reconcile with the claim that cultural evolution *only* serves to explain the development of the market. If the theory of cultural evolution has no normative implications at all, there is no particular reason why the burden of proof should fall on those who oppose spontaneously evolved rules.

Moreover, in actual fact, Hayek did not explicitly say that the *only* role of the theory of cultural evolution is to account for the development of market institutions. Caldwell's gloss on this last passage suggests that Hayek explicitly affirmed the conjunction of two claims: "He states up front that his analysis 'cannot prove the superiority of market institutions' ... but only help us to understand how such an unpopular, but productive, set of institutions might emerge and survive (Caldwell 2002, p. 298). The gloss, however, is misleading. The paraphrase of the second conjunct gives the impression that Hayek expressly stated that a theory of cultural evolution only can help us to understand the development of certain institutions, practices, etc. Yet, Caldwell's inclusion of the word "only" in the paraphrase has no counterpart in the original quote, which says that "a historical and evolutionary survey of the emergence of capitalism ... helps to explain" (Hayek 1988, p. 21). The actual passage is entirely compatible with the claim that cultural evolution serves to justify, as well as to explain the development of, free market capitalism. Thus, there remains only one passage that reasonably unambiguously contradicts the normative reading.

Also, the descriptive reading is inconsistent with the interpretation of at least one well-informed observer. It is significant, I think, that the descriptive reading clashes with the understanding of Karl Popper (1902–1994), with whom Hayek had a long-standing and close intellectual relationship. The two were colleagues and friends for a large part of their lives; they met in 1935, and by the 1950s or '60s, Hayek's biographer Alan Ebenstein wrote, "Popper perhaps became Hayek's closest friend" (2001, p. 162). In a 1985 interview, Popper criticized Hayek's theory of cultural evolution on the grounds that it assumed that evolved orders have morally desirable properties. Popper said: "[The Indian caste system] is a tradition; it has survived for centuries. But I maintain that it is not one *iota* more plausible or desirable because of its long history. However many instances you will mention of something occurring, it will never suffice to establish it in any relevant sense" (Popper as quoted in Gissurarson 1987, pp. 169–70, n. 18).

Judging by this quote, Popper did not believe the only role of the theory of cultural evolution in Hayek's work was to explain. It is possible, of course, that Popper misunderstood Hayek's views, or that he intentionally misrepresented them to the interviewer. Yet, it is likely that Hayek and Popper discussed this important and controversial issue at some point during their long friendship. If Popper had misunderstood Hayek in such a dramatic way, there is a fair chance that Hayek was afforded, and that he seized, the opportunity to correct him. Moreover, to the best of my knowledge, there was no obvious reason for Popper to misrepresent Hayek's position in the interview. Although hardly conclusive, Popper's criticism must be considered *some* evidence against the descriptive reading.

Finally, the descriptive reading makes Hayek's work on cultural evolution come across as careless and misleading. First, it fails to explain why it would be

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irrational to replace a spontaneous order by a combination of spontaneous and artificial orders, as Hayek claimed (1973, p. 51). If the fact that an order is spontaneous gives us no reason to think it may be desirable, Hayek's charge of irrationality appear misguided. Also, as we have seen, there are many passages in which Hayek seems to claim that there is something desirable about spontaneous orders, and that they cannot be improved. By contrast, there are only about four passages, two of which appears in his very last and least reliable work, in which Hayek appears to reject such claims. If Hayek indeed rejected the claim that there is something desirable about evolved orders, we should expect him to say so more forcefully, especially since he must have known that he would be misinterpreted in precisely this way. Similarly, if he adhered to the descriptive reading, and believed that the theory of cultural evolution could be used to explain but not to justify, we might expect him to clarify this important distinction. On the descriptive reading, then, Hayek's charge of irrationality, his extensive use of normative language, and his lack of attention to the distinction between explanation and justification makes him come across as careless or confused. Trying to save Hayek from committing the naturalistic fallacy, therefore, Caldwell condemns him to a fate almost as bad.

Let me sum up the results of the discussion so far. It is quite true that Hayek's discussion of the characteristics of spontaneous orders is ambiguous, and that there are passages in which he appears to deny that there is something desirable about evolved orders. Even so, support for Caldwell's position is weak. Textual evidence is scant. Two of the four quotes that allegedly support their position, when read in context, do not contradict the normative reading. Two of the four come from *The Fatal Conceit*, which is a source of questionable value. And even if we do accept *The Fatal Conceit* as an expression of Hayek's own views, it does not unambiguously support Caldwell's case. Contrary to what Caldwell suggests, Hayek never expressly states that the theory of cultural evolution *only* serves to explain the development of free market institutions. The normative reading is inconsistent with the interpretation of Popper, who we have reason to believe may know what he was talking about. And finally, the interpretation makes Hayek's writings seem seriously misleading.

IV. A THIRD INTERPRETATION

It appears, then, that we face a dilemma. Either Hayek believed that there is something desirable about evolved orders, and he committed the naturalistic fallacy, or he did not believe that evolved orders need to be desirable, and he was simply careless or confused. Neither of these views is entirely compatible with Hayek's writings on cultural evolution. The first is hard to reconcile with the fact that Hayek, in at least one place, alerted to reader to the possibility that evolved orders may fail to be desirable. The second is difficult to square with the prevalence of normative language in Hayek's work on cultural evolution, among other things.

However, I claim, the dilemma is false. In what follows, I wish to defend a version of the normative view. On my interpretation, which I will refer to as the *weak normative* reading, Hayek accepted the thesis that evolved orders *tend to*

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be desirable—that is, that they are likely to be. Thus I agree with Caldwell and Whitman in that, on Hayek's view, evolved orders may fail to be desirable. Still, I will insist that Hayek's theory of cultural evolution was intended to have normative implications, that his normative language should be read as such, and that Hayek in fact endorsed an evolutionary argument for free-market capitalism. This reading, I will argue, is better supported by the evidence—including Hayek's writings and Popper's comments—while remaining charitable enough not to accuse him of committing the naturalistic fallacy.

In contrast to much Hayek literature, I wish to argue that it is quite possible for Hayek to accept a normative interpretation of cultural evolution without committing the naturalistic fallacy. Caldwell, for instance, gave the impression that Hayek could not claim that evolved orders are desirable without committing the fallacy. Consider the following fragment: "the claim that Hayek fell into the naturalistic fallacy, that is, that he thought that the survival of an institution somehow guaranteed its optimality" (2000, p. 20, n. 1). Fortunately for Hayek, this is not so. As it is commonly understood, the naturalistic fallacy was identified, though not under this name, in David Hume's essay *A Treatise on Human Nature*, Bk. III, Pt. I, Sec. I (1739/1996, p. 829). Hume complained that many writers commonly began by "the usual copulations of propositions, *is*, and *is not*" and without justification proceeded to use "no proposition that is not connected with an *ought*, or an *ought not*," as if the latter were simply deduced from the former (1739/1996, p. 829). Yet, Hume adds, since the latter express new and entirely different relations and affirmations, the transition has to be "observed and explained" (1739/1996, p. 829). Thus, the naturalistic fallacy, as the name indicates, is a particular kind of misguided inference, *viz*. from a set of purely descriptive statements—propositions that are connected with "is" or "is not," in Hume's terms, to a normative statement—a proposition that is connected with "ought" or "ought not".

The following argument is an instance of the naturalistic fallacy, since it involves an inference from a purely descriptive statement to a normative one:

(1) *S* is a spontaneous order (A)

(∴) S is a desirable order

If this were the argument pattern Hayek used in his work, then he would indeed have committed the fallacy. However, the following argument is *not* an instance of the fallacy:

(1) *S* is a spontaneous order
(2) (For all *x*) [*x* is a spontaneous order→*x* is a desirable order] (B)

(∴) *S* is a desirable order

Indeed, this is a valid deductive argument. The difference is that argument (B) has a normative premise, *viz*. premise (2). If this is the argument pattern Hayek endorsed, he did not commit the fallacy. Of course, the argument incorporates a premise that expresses the proposition that evolved orders are desirable. Yet, asserting premise (2) is no more fallacious than asserting that free trade is good, or that torturing innocent children is bad.

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The thesis I ascribe to Hayek is a probabilistic one: it asserts that evolved orders are likely to be desirable. This amounts to replacing premise (2) by a probabilistic one (2′), as follows:

(1) S is a spontaneous order
(2′) (For most x) [x is a spontaneous order$\rightarrow x$ is a desirable order] (C)

(∴) S is a desirable order

The double line indicates that the argument is no longer deductive, but inductive. Like all inductive arguments, it occasionally fails. Still, there is nothing obviously wrong with it; in particular, it does not instantiate the naturalistic fallacy. If this is the argument form Hayek endorsed, he escaped the naturalistic fallacy. Moreover, he could argue that the spontaneous order of the free market is a desirable order. If we substitute "the market order" for "S" in (C), the argument in question falls right out of it. On this reading, as the argument is inductive, pointing out that the market order is a spontaneous order gives us *good grounds* to believe that it is desirable, but does not *conclusively prove* that it is.[6]

The weak normative reading, I claim, is the only reading that captures the full complexity of Hayek's work on cultural evolution. The reading explains why Hayek would favor normatively charged terms when describing orders that result from a process of cultural evolution, and why it would (often) be irrational to try to improve on them. Moreover, the weak normative interpretation explains why Hayek did not emphasize the distinction between justification and explanation; because the theory serves to justify as well as to explain, there was no need to do so. Furthermore, and importantly, the weak normative reading explains why Hayek occasionally pointed out that evolved orders may fail to be desirable and need to be improved; there are, after all, exceptions to the rule. Finally, this reading explains why Hayek would use probabilistic language—like "most likely" and "often"—when describing the qualities of evolved orders. He did not believe that evolved orders are guaranteed to be desirable, only that they are likely to be so.

All told, although the ambiguities in Hayek's own presentation remain significant, there are many reasons to accept the weak normative reading. It is the only one that fully captures the complexities in Hayek's work. It explains both why he would so often favor normative language when describing the outcome of cultural evolution, why he would occasionally point out that spontaneous orders may fail to be desirable, and why he would talk about their qualities in ways suggestive of probabilistic claims. The interpretation exonerates Hayek from the charge that he committed the naturalistic fallacy. Moreover, the weak normative reading is supported by the fact that a knowledgeable observer like Karl Popper took Hayek to endorse the claim that there is something desirable about evolved traditions.[7]

[6]For an extensive discussion of the properties of, and differences between, deductive and inductive arguments, see Salmon (1995, chapters 3–4).
[7]The weak normative reading appears to have been adopted, although implicitly, by some Hayek scholars (cf. Sugden 1993, p. 397; Denis 2002, p. 284).

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V. CONCLUSION

Let us now return to the original question: Did Hayek commit the naturalistic fallacy? In spite of remaining ambiguities in Hayek's work and in our interpretation of it, the present discussion suggests that the question should be answered in the negative. There are several ways to understand Hayek's writings on cultural evolution, many of which allow us to say that he escaped the naturalistic fallacy. Thus, it would be uncharitable to charge him with committing the fallacy. Instead, I have identified three different readings, all of which exonerate him from the charge of committing the naturalistic fallacy.

According to the *strong normative reading*, Hayek thought evolved orders were guaranteed to be desirable. This interpretation is difficult to reconcile with the passages in which Hayek appears to point out that evolved orders may fail to be desirable, and with Hayek's use of probabilistic language when describing their qualities. According to the *descriptive reading* favored by Caldwell and Whitman, Hayek did not believe that spontaneous orders are guaranteed to be desirable, and he did not endorse an evolutionary argument in favor of free market institutions. This reading finds only weak support in the texts, is inconsistent with what appears to be Popper's interpretation of Hayek's theory, and suggests that Hayek's exposition of his theory of cultural evolution is careless and misleading. According to the *weak normative reading*, which I favor, Hayek accepted the thesis that evolved orders *tend to be* desirable—that is, that they are highly likely, but not guaranteed to be so—and he did endorse an evolutionary argument for free market institutions. I maintain that this reading is consistent with the Popper quote, and captures the full complexity of Hayek's work on cultural evolution.

So far I have said little about how Hayek would have justified the claim that evolved orders tend to be desirable, i.e., how he would defend the second premise (2′) of his argument for free market capitalism. Of course, there are many different ways for Hayek to do so. In particular, he could expand argument (C) along the following lines:

(1) S is a spontaneous order
(2a) (For most x) [x is a spontaneous order$\rightarrow x$ has property P]
(2b) (For all x) [order x has property $P\rightarrow x$ is desirable] (D)

(∴) S is a desirable order

Here, the second premise has been replaced by two statements which claim that evolved orders tend to have some particular property, and that orders with that property are desirable. The property in question may be "the ability to utilize dispersed information," "the ability to maintain a large population," "the ability to maximize average income," or some such. If we assume that Hayek believed that premise (2b), whatever its exact formulation, was entirely uncontroversial or at least widely shared, this would account for his belief that disagreements on the virtues of the free market hinge on matters of fact and not of value. Everything Hayek would need to do was to prove premises (1) and (2a), which are perfectly descriptive. It should be said that I do not pretend to know how, exactly, Hayek would have defended premise (2′). Fortunately for my argument,

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it is not necessary to specify how Hayek would have supported it. Everything I claim here is that Hayek accepted some argument of form (C).

Though my aim is not to criticize Hayek's theory of cultural evolution, I want to add a word by way of assessment. The disadvantage with the weak normative reading, from Hayek's point of view, is that it is highly questionable whether evolved orders tend to be desirable in any interesting (normative) sense. It is likely, then, that Hayek's argument proceeds from a false premise. However, the claim that Hayek turns out to be wrong on my interpretation does not show that it is incorrect. In my view, the weak normative reading should be accepted because it is the only one that captures the complexity of Hayek's work on cultural evolution while crediting him with offering a logically coherent argument.

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