

Stefan Descher

## Art and Evolution Reconsidered: Stephen Davies on the Possible Connections between Art and Evolution

- Stephen Davies: *The Artful Species. Aesthetics, Art, and Evolution*. Oxford: Oxford University Press 2012. 301 S. [Preis: EUR 34,99] ISBN: 978-0-19-965854-1

Whatever the differences may be: people of all nations, cultures and social classes are in one way or another engaged in the arts. Art behaviour – »the practices of creation, presentation, reception, and appreciation of art« (117) – has a long history dating back to the Upper Palaeolithic where the first unquestionable works of art originated, it is a universal phenomenon spread across the globe, and that calls for an explanation in terms of evolution. Accordingly, many of the recent debates in evolutionary aesthetics have focused on questions such as the following: What is the origin of art or of particular art forms like music or literature? To what extent do our aesthetic preferences have biological underpinnings? What is the evolutionary status of art behaviour? What kind of story can plausibly be told about the connection between art and evolution? Does art behaviour in any way contribute to the evolution of the human species? In his recent book *The Artful Species* the philosopher Stephen Davies, well-known particularly for his important contributions to the philosophy of art, sets out to »investigate possible connections between evolution, art, and aesthetics.« (6) Of course, Davies is not the first to do this. Nowadays, the field of evolutionary aesthetics is crowded by scholars coming from all kinds of disciplines (biology, psychology, anthropology, neuroscience, cognitive science, archaeology, literary studies, and many more) and there is an enormous and still growing body of literature on the topic – just think of seminal works like Dutton's *The Art Instinct*, or (particularly devoted to literature) Boyd's *On the Origin of Stories*, and Gottschall and Wilson's *The Literary Animal*. The merit of Davies's book is not that it would propose yet another startling, brand-new theory about the relation between art, our aesthetic senses, and evolution. Rather, it is an important contribution to evolutionary aesthetics simply because the author does what philosophers do best: He takes a careful look at prominent answers given to those questions, scrutinises prevalent arguments and gives them a nuanced and well balanced assessment.

The book has gained a lot of attention and is widely discussed. In this review I will just briefly give a general overview of the book and then, according to the scope of this journal, basically focus on the connection between evolution and art, especially between evolution and the creation and consumption of narrative fictions. Readers interested in aspects of the book not covered in this review will find links to other reviews on a weblog Davies runs in order to provide further information and keep track of the discussions.<sup>1</sup>

*The Artful Species* divides into three main parts. Part I introduces the key concepts, namely »art«, »aesthetic«, and »evolution«. Davies does not try to give full-fledged definitions of these concepts. However, he needs some kind of working-definitions to get started. According to Davies, »[a]esthetic experience involves awareness and appreciation of something's aesthetic properties« (9), these properties being in a very broad classification the properties of »beauty« and the »sublime« and their opposites. What is encompassed by the concept of »art« is characterised as follows:

[S]omething is art (a) if it falls under an established, publicly recognized category of art or within an established art tradition, or (b) if it is intended by its maker/presenter to be art and its maker/presenter

does what is necessary and appropriate to realizing that intention, or (c) if it shows excellence of skill and achievement in realizing significant aesthetic or artistic goals. (28f.)

This disjunctive account of art is very broad and includes prehistoric cave paintings and the infamous »sexy hand axe« as well as pop music, symphonies, paintings, dance performances, novels, and TV-series. But this does not imply that there are no differences between high and low, good and bad art, genres, styles, etc. The point is that these differences simply do not matter when you are looking for a connection between art and evolution. You may specify »art« in a much narrower way and exclude everything that does not meet your standards. But if you are looking for an informative answer to the question how art behaviour and evolution are connected, it is reasonable not to be too restrictive about what counts as art and what does not.

Part II discusses the relation between our aesthetic senses and evolution, particularly our aesthetic responses to non-human animals, to landscapes, and to human beauty. All these responses, Davies argues, are at least partly explained by reference to biological evolution. This part contains many worthwhile discussions on these issues – especially Davies’s treatment of the aesthetic responses to non-human animals may be highly illuminating to anyone who has ever been puzzled about the continuous boom of »cute kitten videos« on YouTube and other related phenomena. But in what follows I will mainly focus on the contents of Part III.<sup>2</sup> This last part examines the connection between art behaviour and evolution, and discusses several theories that try to classify art behaviour as either an adaptation (i.e. a behaviour that enhances fitness, that is the potential for surviving and reproductive success), a spandrel (i.e. a by-product of an adaptation with no evolutionary function itself), or a technology (i.e. a non-evolutionary, but merely cultural product like the ability to make and control fire).

## 1. General Theories of Art and Evolution

One of the main purposes of the book is to evaluate prominent theories that answer the following question: Does art have an adaptive function, is it a by-product of evolution, or is it a merely culturally invented »technology«? Davies distinguishes *general* theories about the connection between art and evolution from *art-form-specific* theories that restrict their claims not to art in general, but to particular art forms like music, painting, dance, literature, and so on. (123) He also stresses that there is a condition that every theory about the connection between art behaviour and evolution must meet: »Ideally, to establish a strong, art-specific connection with evolution, art-general theories should identify an evolutionary significant function performed not only by *all* the arts but also by *only* the arts.« (123) Davies is not convinced that any of the current theories meets this requirement, and I will roughly summarise his arguments. Subsequently, I will turn to his assessment of theories concerning the connection between evolution and narrative fiction as a specific form of art.

The first view maintains that all art forms serve an adaptive function. Current versions of the adaptation view – held by, for example, Ellen Dissanayake who thinks that art is a way of »making things special«, Geoffrey Miller who thinks that art behaviour serves the function of sexual selection, and others – are criticised for failing to identify an adaptation that is specific to art behaviour. Of course, art can have many different functions and much can be said about why and in what different ways art behaviour can be beneficial to individuals or groups. But this alone is not sufficient to establish art behaviour as having a distinctive adaptive function.

The second view – most prominently defended in Steven Pinker’s *How the Mind Works*<sup>3</sup> – maintains that art and art behaviour is a spandrel, a by-product of evolution. The prime

examples of spandrels are biological features like male nipples and human navels – by-products of evolution that seem to serve no evolutionary function. So, is art in this respect on a par with male nipples and navels? According to Davies, this view is not less problematic than the adaptation view, mainly for two reasons: First, even if art behaviour initially may have emerged as a by-product of evolution, it could not plausibly have remained a spandrel »because of the significant role it plays in human life.« (144) Here is Davies:

If art behaviors came to us as ancillary evolutionary by-products, they would not remain merely incidental. Their occurrence in the usual manner would become *normative* because they provide honest, because costly, signals of fitness. As a result, not only the absence of art behaviors but also the degrees to which they are represented can be *informationally significant in assessing someone's fitness*. (145 – my emphasis)

So Davies's thesis – he calls it »from form to norm« (144) – is this: Even if art behaviour initially had no function when it first emerged as a mere spandrel, it consequently became normative as a reliable signal of fitness. It is a signal of fitness because engagement in the arts requires intelligence, creativity, skilfulness, leisure (there is no time for art when looking for food is a full-time job), etc. And it is reliable because it is costly, it needs time, it needs the development and practice of skills, and so on. But note that even if art behaviour can be a reliable sign of fitness in various ways, this alone does not make it adaptive. To be adaptive, this function should be art specific. But obviously, there is a variety of non-artistic behaviours that perform that function as well.

Another reason for Davies's critique of spandrel views is particularly interesting because he points to a condition for those views that is easily overlooked: To establish the spandrel view is even more demanding than the adaptation view. Because even if it were true »that art originally was a by-product of other adaptive behaviors, this does not show that art behaviors have not subsequently taken on adaptive functions in their own right.« Therefore: »Spandrels can be confidently identified as such only after the possibility that they are adaptations is tested and defeated.« (144) Thus, the burden of proof is even higher for proponents of the spandrel view.

The third view, art as a technology, maintains that art is a mere product of culture. Of course, in some sense *all* behaviour is based on our biological and genetic setting. But the technology view holds that technologies are tied to biology only in a very loose fashion and are independent of evolved art-specific capacities. Technologies, Davies explains, »are learned via culture and are achieved by us, rather than being genetically transmitted.« (148) This view, though, is dismissed rather quickly. According to Davies, it does not allow for co-evolutionary accounts of art, i.e. theories that treat art as a product of both biological and cultural evolution. In this respect it is too restrictive and reductive. Art is different from other technologies like the ability of making fire which is indeed culturally transmitted from generation to generation and does not seem to be either an adaptation or a spandrel, though of course it affected the evolution of the human species.

This does not look very promising. And indeed: »If *technology*, *spandrel* and *adaptation* exhaust the logical space of possibilities, as I believe they do, it looks as if something has gone wrong.« (184) But it has not. Davies's answer to the question whether art is an adaptation, a spandrel, or a technology is simply this: We do not know for sure. Although the third view – the view that art is a mere product of culture, an invented and culturally transmitted technology not affected by biological evolution and *vice versa* – is ruled out as entirely implausible, Davies does not conclude that adaptation or spandrel views are wrong in principle. His point is that, up to now, none of the theories considered can count as proved. The logical requirements for those theories are hardly met, the available evidence is weak in

many cases – Davies is aware of the fact that most of what we think »was true in prehistory« is inevitably speculative (184; see also 43) – and sometimes one and the same hypothesis may lend support to more than one of the competing theories. What the book accomplishes in the first place is not to give answers to all the questions that arise in the context of art and evolution, but to point out which widely held views are problematic and for what reasons, which arguments do not work and where more work is to be done. This Socratic attitude, as you may call it, is characteristic for the whole book and Davies's treatment of many views current in evolutionary aesthetics. (Another good example is his critique of the »savanna hypothesis« (96ff.) – the thesis that we have a preference for savanna-like landscapes because it was the African savannas to which our human ancestors became adapted.) And as Davies rightly points out: »We do not need to settle that issue, however, before we can conclude that art behaviors serve as informationally rich indicators of many dimensions of human fitness.« (119)

## 2. Narrative Fictions and Evolution

The arts – music, painting, sculpture, dance, literature, etc. – obviously differ from each other. They employ different media, can be consumed in different situations and circumstances, and they address such different capacities (like visual perception in the case of painting, language-processing in the case of literature) that it is hard and probably impossible to see which, if any, specific evolutionary function they all may jointly perform. Thus, if general theories cannot stand up to scrutiny, perhaps theories about particular art forms can. So let us turn to literature or, more precisely, narrative fictions (for convenience, I will use both terms interchangeably).

What is the connection between literature and evolution? The most prominent view is that literary behaviour – the creation, consumption and appreciation of narrative fictions – serves an adaptive function. Davies examines a variety of different proposals to establish this view and I will not go through all of them, but to sum up, there are mainly three lines of argument in favour of this account. The first argument is that literature is a genuine source of information. Consuming narrative fictions can be instructive in many ways. We can gain knowledge from them, may learn a great deal about social relations and the way humans think, feel, and act. In addition, narrative fictions »provide worlds that can be imaginatively explored without generating real-world risks and consequences.« (168) The second argument is that particularly the creation of fiction is a reliable indicator of fitness. Someone who is engaged in the creation of narrative fictions can thereby show their intelligence, their skills, their wit, their experience, their creativity, etc. And this, so the argument goes, serves for gaining social status, attracting possible mates, and so for sexual selection. The third argument is that literature is beneficial to the group because it is a helpful vehicle for establishing certain values, promoting or denouncing certain patterns of behaviour, increasing group cohesion, etc.

As for the first argument, Davies has a battery of counter arguments and I will only mention those which strike me as the most important. First of all, he admits that we can learn from narrative fictions. However, echoing the main argument against general theories of art as an adaptation, Davies argues that although some and perhaps most narrative fictions undeniably have informational value as they are exploring and illuminating important aspects of human life, this still does not prove that literature is adaptive. To be adaptive, these benefits should be specific to literary behaviour, which they are obviously not. We do not need narrative fictions (with emphasis on »fictions«) to gain knowledge about the way humans think, feel,

and act. On the contrary, factual narratives about real people and real events may serve this function even better.

There is the further worry that – even if we can gain genuine knowledge about the real world from fictions – all we may learn could still be simple platitudes (»crime does not pay!«) that barely contribute to the refinement of our social skills. Those platitudes may be too general and too abstract to be of significant practical value in dealing with other human beings. Narrative fictions may even »miseducate« us. (170) They may deceive and persuade us of things that are simply wrong. And indeed, the acquisition of false beliefs does not seem to be a promising way for enhancing our fitness.

As for the second argument, Davies rightly emphasises that »much fictional narrating takes place under conditions in which mate selection is not at issue«. (166) In addition, there is no empirical evidence for the thesis that authors of fiction are more successful in spreading their genes and producing significantly more children than others. Actually, in the case of music, a study of European male composers from the last six centuries indicates exactly the opposite direction. (126)

As for the third argument, Davies admits that a lot of narrative fictions can have beneficial impact on the group. But it is also true that many of them do not: Literary fictions may even serve opposite ends and recommend values and patterns of behaviour that are destructive for the group. Furthermore, proponents of this argument seem to be committed to the theory of group selection (the theory that groups, not only individuals, are the units of evolutionary selection) which seems to be incompatible with the classical Darwinism most of them embrace. (167f.)

However, Davies's principal critique of Literary Darwinists that try to establish literary behaviour as an adaptation – often professors of literature, as Davies mentions more than once – is this: First, even if they are right in highlighting that literature has an important informational value and literary behaviour is beneficial in various respects that alone still does not make it adaptive. To be adaptive, these benefits should be specific. Second, Literary Darwinists »hardly ever take seriously the need to establish that the benefits in question outweigh the costs and that the allegedly adaptive characteristics are heritable.« (162) I doubt, though, that it poses serious difficulties for adaptationists to show that the benefits of literary behaviour outweigh the costs. Of course, the production and consumption of narrative fictions may not be pleasurable from start to finish. It takes time, it draws the attention away from »the real world«, it can isolate you from the community, and so on. But if fiction really *has* the benefits that adaptationists claim for it (and Davies in most cases does not doubt those benefits), then this seems to be sufficient to show that it is worth and rewarding to engage in it. The second point from the passage just quoted is more important: If literary behaviour is adaptive, then it must be shown that the dispositions and capacities that literary behaviour relies on are not only genetically transmitted, but that literary behaviour is »causally responsible for them.« (171) And it is hard to see how that hypothesis could be corroborated.

If, after all, literary behaviour cannot be classified as an adaptation, perhaps spandrel-theories can provide a better understanding of the connection between evolution and the behaviour in question. Davies briefly discusses one single theory proposed by William Flesch. According to Flesch, human beings have the evolved capacity to track the behaviour of others. Fiction »recruits« this important capacity. (143) It makes use of it and can itself be used as a tool for monitoring possible social relations. Yet, according to the theory, it does *not* have the function of improving this capacity. Therefore, literary behaviour is not adaptive, but a by-product of certain social competencies. Davies's critique of this proposal is twofold: First, there is the

obvious fact that not all narrative fictions deal with »themes concerning social coordination and management«. (ibid.) Second and more important, proponents of both accounts – those claiming that literature is a spandrel, or that it is adaptive – often draw different conclusions from the same premises. Both argue for their respective view by pointing out that, for example, narrative fictions have the function of monitoring and illuminating social relations. But Davies rightly draws our attention to the fact that these hypotheses, even if true, are compatible with both views.

There is another pertinent question concerning the relation between the theory of evolution and literature: To what extent does the theory of evolution bear on the interpretation of works of literature? Most of the time Davies remains silent about this issue (and perhaps for good reason because there might not be much to tell). Nevertheless, he makes an interesting comment on attempts to interpret certain works of literature from the perspective of evolutionary psychology. (161f.) And indeed, the culture-invariant existence of certain pertinent plot types and themes like ›love‹, ›jealousy‹, ›rivalry‹, and so on call for an explanation in terms of the evolutionary history of the human mind. There are good reasons to think that the important role these themes play in our and our ancient forebears' lives can provide such an explanation. Davies does not quarrel with those who try to explain the pervasiveness of certain plot types and themes by appeal to the evolved nature of the human mind. However, he criticises attempts to tie those interpretations (if you want to call these explanations ›interpretations‹) to the attribution of literary value. The appeal to evolution may have explanatory power concerning the question *why* so many works of fiction constantly deal with those themes. But the fact that a particular work of literature exhibits and explores a certain theme clearly does not make it good or bad. Interestingly enough, Davies concedes that there are certain exceptions. For example, he maintains that »psychological plausibility is almost always an artistic plus« in narrative fictions. (162) Therefore, interpretive studies from the viewpoint of evolutionary psychology may be relevant »for demonstrating the insights and sensitivities of literary authors, which is pertinent to measuring their achievements.« (ibid.) But I wonder if this argument really shows that an appeal to evolution can contribute to literary *interpretations*. It is true that, from an evolutionary perspective, it is an advantage to know what, why, and how humans think, feel, and act, and this may be an explanation of our interest in fictions that explore how humans think, feel, and act in different situations. And indeed, part of what can make a work of fiction good is that its author makes us understand (at least to some degree) how and why the fictional characters act the way they do.<sup>4</sup> But that, I think, does not tell us much about the interpretation of narrative fictions. It tells us something about ourselves, our evolved interests, desires and preferences, and so it may explain why we value particular works of literature for certain features and achievements.

### 3. Conclusion

*The Artful Species* stands out for its exceptionally clear style, carefully crafted arguments and the author's familiarity with a massive body of relevant literature from various areas of research: about a third of the book is devoted to endnotes, a glossary, the list of references, and a helpful index. Readers of the book will learn a lot from it, whether they may agree with the conclusions of the author or not. Furthermore, Davies is not engaged in making politics. He correctly points out that – whatever a particular art form may be: an adaptation, a spandrel, or a technology – none of these theories, even if they were true, would make that art form more or less valuable for us. Contrary to what some authors in the field may think – Davies gives some examples (121f.) – the value of any form of art (and, consequently, the value of the respective scholarly disciplines studying these art forms) does not depend on its

evolutionary function. Of course, others made this point before.<sup>5</sup> Nevertheless, I think it is a significant one and worth to be emphasised.

But the particular virtue of the book is that Davies is very careful in making his judgments. A recurring theme of the book is the insistence on the lack of empirical evidence and on the logical requirements that must be met before a certain view can be established. Accordingly, the author is often reluctant to give conclusive answers to the questions that arise in the context of art and evolution. This attitude that I have called Socratic strikes me as particularly appropriate in an area of research that is prone to overestimating the explanatory force of an appeal to evolution used to elucidate all the various aspects of our engagement with the arts. *The Artful Species* advocates a more modest stance. Evolution may tell us a lot of interesting things about our relation to art: Why we value it, why certain themes and plots are of particular interest to us, why art and specific art forms are universal, how art and specific art forms can contribute to our lives, which functions they may perform, and so on. But it may not be the *explanans* for everything that puzzles us about art and its place in our world.

However, for all the brilliance in style and clarity of arguments the structure of the book is not convincing in every detail. For example, as mentioned above, Davies distinguishes general theories from art-specific theories. But, in a chapter entitled »Art as a Technology« (Ch. 10), the only theory that is subjected to scrutiny is Aniruddh Patel's theory of music as a technology. Davies just vaguely indicates that Patel's view could be extended to a theory about art behaviour in general. (150) But that is a minor criticism. *The Artful Species* is an important contribution to evolutionary aesthetics, accessible for both newcomers in the field as well as experts. Newcomers will benefit from its remarkable readability, the introduction and careful evaluation of a vast range of competing accounts, and the fact that all pivotal concepts and theories are introduced, explained and often illustrated by examples. Specialists will profit from the great clarity, the detailed criticism of numerous theories, and the emphasis laid on the requirements that theories about the connection between art and evolution must meet in order to count as justified.

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## Notes

<sup>1</sup> <http://artfulspecies.wordpress.com/> – The blog provides web resources (e.g. a list of links to pictures of the artworks discussed in the book) and links to discussions, reviews, talks as well as a video presentation by the author.

<sup>2</sup> Readers looking for an extended discussion of the contents of Part II may find an excellent article by Anton Killin helpful: Anton Killin, *The Arts and Human Nature: Evolutionary Aesthetics and the Evolutionary Status of Art Behaviours*, *Biology & Philosophy* 28:4 (2013), 703–718.

<sup>3</sup> Steven Pinker, *How the Mind Works*, New York 1997.

<sup>4</sup> I say that with some reluctance. Is it »psychologically plausible« that Walter White in the TV-series *Breaking Bad*, being faced with cancer, stops being an ordinary family man and becomes an exceptionally cruel drug lord, killing and threatening almost everybody who gets in his way? You may doubt that. Of course, there are reasons for his behaviour and his decisions, but they will strike most of us at least as strange and unfamiliar. But this »psychological unusualness«, the fact that his behaviour is plausible only to some degree, seems to be one of the

reasons why the series is an excellent and valuable work of art. Too much psychological plausibility could make a work ordinary and even boring. And this should be true of many narrative fictions, whatever the medium may be.

<sup>5</sup> Cf. Steven Pinker, Toward a Consilient Study of Literature, *Philosophy and Literature* 31:1 (2007), 162–178, 169f.



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