

Analogies and Insights in “Morpho Eugenia”: A Response to June Sturrock*

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In “True Stories and the Facts in Fiction,” her essay on “the relations of precise scholarship and fiction” (92) and in “The Conjugal Angel” and “Morpho Eugenia,” the novellas published together as *Angels and Insects*, A. S. Byatt mentions the entomologist and ‘father’ of sociobiology E. O. Wilson twice. The first time, the name appears in the last of the three epigraphs:

“I must buy that. It would give me new metaphors.” A poet, my friend, on the telephone, after my enthusiastic recommendation of E. O. Wilson’s *Insect Societies*. (“True Stories” 91)

What sounds like a full endorsement of the exploitation of science for poetic purposes is later retold in a more cautionary vein:

Insects are the object of much anthropomorphising attention—we name their societies after our own, Queen, Soldier, Slave, Worker. I think we should be careful before we turn other creatures into images of ourselves, which explains why I was worried by my poet-friend’s wish to find metaphors in E. O. Wilson’s *Insect Societies*. Wilson’s own extensions of his thought into human sociology have led to anxieties about political correctness, but he does have the ability to make us imagine the *antness* of ants—at least as constructed by this particular scientist. (“True Stories” 115)

The ambivalence expressed in these two quotes is very much at the core of “Morpho Eugenia,” a text in which A. S. Byatt explores the

*Reference: June Sturrock, “Angels, Insects, and Analogy: A. S. Byatt’s ‘Morpho Eugenia,’” *Connotations* 12.1 (2002/2003): 93-104.

For the original article as well as all contributions to this debate, please check the Connotations website at <<http://www.connotations.de/debsturrock01201.htm>>.

process by which humans turn other creatures into images of themselves.

The narrative of “Morpho Eugenia” repeatedly directs our attention both to the multiple analogies between human and insect behaviour and to the inevitability and the dangers of all reasoning through analogy. (Sturrock 98)

However, once the power and dangers of metaphors and analogies are diagnosed, the following questions are necessarily: Who invented the metaphors? And who noticed or made up the analogies? The answers here are ambivalent, as the novella taps into the discourse on Darwinism in the nineteenth century, but, in doing so, also enters the more recent discussion on sociobiology. In my response to June Sturrock’s article, I would like to expand on this aspect and the specific form in which Byatt evokes analogies and, at the same time, challenges arguments based on analogies between human and animals.

The link between humans and social insects like ants has a pedigree going back as far as Darwin—actually, the bee-hive has been a metaphor for a well-ordered state for even longer. In her essay on *Angels and Insects* A. S. Byatt quotes Maeterlinck’s *La vie des fourmis* from 1930, but his earlier work *La vie des abeilles* from 1901 is probably even more important for “Morpho Eugenia.” It is here that he suggests a ‘spirit of the hive’ as the ruling entity of the community of bees—it is something of an anachronism that William Adamson ‘precedes’ Maeterlinck when he muses about a possible “Spirit of the Nest” and asks whether the ants are individuals, or whether they are

like the cells in our body, all parts of one whole, all directed by some mind—the Spirit of the Nest—which uses all, Queen, servants, slaves, dancing partners—for the good of the race itself, the species itself. (*Angels and Insects* 47)

A similar idea was then introduced by William Morton Wheeler in 1911 when he formulated his concept of the animal colony as a superorganism.¹ In literature we find it adapted in T. H. White’s *Book of Merlyn* when King Arthur is transformed into an ant, but also in Olaf Stapledon’s *Last and First Men*, in which the invading Martians

may act as individuals or form a superorganism. In 1971 the idea was brought up again in Douglas Hofstadter's *Gödel, Escher, Bach* with the ant colony now serving as an analogy to the human brain. In their seminal book *The Ants*, Bernd Hölldobler and E. O. Wilson suggest: "The time may have arrived for a revival of the superorganism concept" (*The Ants* 358), and recently the ant-hill was compared not only to the brain, but also to the city, in Steven Johnson's *Emergence: The Connected Lives of Ants, Brains, Cities and Software*. Thus, the basic idea of forging an analogy between the ant colony and some aspect of human life is hardly original.

Nevertheless, A. S. Byatt's book is highly original, and I want to suggest that some of its impact derives from the specific form in which the analogy is constructed, not for a trans-historical or essential phenomenon, but only for a comparatively brief moment within the history of a limited environment. In an interview, A. S. Byatt comments about the origin of her novella:

I began with a visual image. I wanted to write a story which combined my obsession with television naturalism with my obsession with Victorian gothic. I thought you could make a really beautiful film which compared an ant heap to a Victorian mansion. And in the middle of the ant heap there's this large fat white queen simply producing children. The question is: is she the power centre, or is she the slave? ("Ant Heaps")

The answer to this question is, once more, ambivalent,² as the matriarch does indeed exercise some power over the servants,³ and, in general, the hierarchy within the mansion is not really challenged. However, there is the moment when the community itself seems to act, although the source of the action remains vague. When William is called to his wife and detects her incestuous relationship with her brother, it is quite unclear who had actually ordered his return to the house and intended the subsequent discovery. Matty's explanation then argues for the presence of some 'spirit of the hive' when she claims that "now and then *the house* simply decides that something must happen" (*Angels and Insects* 177, italics in the original).

I would like to suggest that, in passages like these, Byatt indeed enters the recent discussion on sociobiology and its frequent emphasis on similarities between human and animal behaviour. She is cognizant of its claim that behaviour is at least to some extent genetically encoded and that our genes keep us on a leash the length of which has yet to be determined.

To show how Byatt signals her concern with recent discussions, I need to digress for a moment and focus on some seemingly casual terms which occur on two consecutive pages, as they may well signal the presence of some of the new scientific protagonists and their arguments in the historical context. The terms are 'altruism,' 'Pangloss,' and 'watchmaker.' The word 'altruism' was coined by Auguste Comte in 1851 and, according to the *OED*, introduced in England two years later. In Byatt's novella, it appears in the writings of Harald Alabaster: "We have been accustomed to think of *altruism* and *self-sacrifice* as human virtues, essentially human, but this is not apparently so. These little creatures exercise both, in their ways" (*Angels and Insects* 98, italics in the original). In Darwin's *The Origin of Species*, the term is never used; he speaks of 'love' or 'sympathy' instead. In Harald Alabaster's attempt to defend the Christian faith in the face of Darwinism, the word sounds very much out of place; with the emphasis on 'love' in Alabaster's tract, one would rather expect 'charity' to express the turn from egotism to benevolence. However, it is one of the terms most often discussed in the field of sociobiology, and social insects are very much present in the investigation as to whether altruism may be genetically encoded (cf. for example Wilson 1978, 151-53). Its appearance in "Morpho Eugenia" thus signals Byatt's awareness of its recent significance. Earlier on the same page of "Morpho Eugenia" we find a reference to Pangloss, the schoolmaster of Voltaire's *Candide*, and his firm belief that we live in the best of all possible worlds. Harald Alabaster writes: "We do not have to be Pangloss to believe in beauty and virtue and truth and happiness and above all in fellow-feeling and in love, human and divine" (*Angels and Insects* 98). Indeed, we do not, but while Pangloss has been proverbial

for a long time, it may well be significant in this context that one of the most controversial texts in the discussion on sociobiology was Stephen Jay Gould's and R. C. Lewontin's "The Spandrels of San Marco and the Panglossian Paradigm."⁴

A few lines earlier, the concept of the watchmaker is introduced, however not in the tradition of William Paley and his argument concerning design, with God as the divine watchmaker. Instead, the hypothetical craftsman is presented as a far less benevolent alternative to Alabaster's own firm belief in the Christian concept of creation:

Our God is not a *Deus Absconditus*, who has left us darkling in a barren waste, nor is He an indifferent Watchmaker, who wound up a spring and looks on without passion as it slowly unwinds itself toward final inertia. (*Angels and Insects* 97)

Two contradictory ideas are fused in this image of the watchmaker, the origin of creation and a universe that is running down, and thus the sentence evokes in one image the seemingly contradictory scientific concepts that were so influential in the second half of the nineteenth century. The indifferent watchmaker would, of course, be Darwin's nature itself with the promise that "as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress towards perfection" (*The Origin of the Species* 428). But here we also find the intrusion of the Second Law of Thermodynamics, and, instead of constant progress and perfection, we face a universe that is doomed to deplete its energy and ultimately end in heat death.⁵ However, there is more at stake than the historical context, for the indifferent craftsman evoked here is strongly reminiscent of *The Blind Watchmaker* as described by Richard Dawkins, the scientific antagonist of Stephen Jay Gould: "Natural selection is the blind watchmaker, blind because it does not see ahead, does not plan consequences, has no purpose in view" (Dawkins 21). Thus, in a comparatively short passage of the book, some of the most popular exponents of evolutionary theory are, if only implicitly, mentioned, and I suppose that this indicates Byatt's awareness of, and interest in the recent discussion.

However, I want to suggest that her own contribution also remains implicit, i.e. her position cannot be isolated in particular quotations and statements from her protagonists; rather the text in its entirety is the argument.

To make my point, I need to address the ways sociobiological claims about the influence of genes on our behaviour are usually argued and defended.⁶ There are several possibilities, the main ones being the establishment of universals, the discovery of an evolutionary stable strategy, and/or analogous behaviour among animals. If a behaviour or feature exists in all human cultures and thus seems to be a universal feature of humanity, chances are that it is genetically encoded, as the diversity of cultures would indicate that historical contingencies would have had an impact on the particular trait in at least some cultures. Moreover, if a particular behaviour brings about evolutionary advantages in the course of the development of the human race and still exists in a world in which it is no longer necessarily advantageous, it can be argued that it is ingrained in our nature. And, finally, if some form of behaviour can be found in animals such as, for example, our next of kin on the evolutionary scale, but also more distant species like social insects, it goes to prove that this behaviour can be encoded and transmitted non-culturally. Of course, none of these arguments are absolutely conclusive, and since evolution as a historical science cannot be replayed and verified experimentally, there is always room for reasonable doubt. If some behaviour appears in all different cultures, this may also indicate that it is useful in all cultures or that it has spread by a form of intercultural contamination. If human behaviour fits an evolutionary stable strategy it could also result from cultural transmission—and the questions as to when precisely human culture began and what the exact conditions and evolutionary demands were have not yet been answered conclusively. And if some form of behaviour is genetically encoded in animals, this does not prove that a similar behaviour in other beings has to be genetically encoded as well.

However, a closer look at many sociobiological approaches—and, in particular, popularizations and semi-scientific accounts—shows that the searches both for universals and for evolutionary stable strategies are frequently marred by a cultural bias which takes our own culture as a general standard. Consequently, the arguments often rest on the assumption of monogamy as the natural form of partnership among humans, even if this is certainly not a universal in all human cultures. Moreover, the evolutionary advantage of various aspects of courtship, infidelity, jealousy, etc. are constructed in relationship to our cultural environment, and, in the search for analogies in the animal kingdom, those aspects are selected for closer inspection which actually fit some form of animal behaviour. With the enormous amount of species and behaviours, it will always be possible to find something resembling human behaviour.⁷

In A. S. Byatt's novella, the characters are, of course, also biased towards the discovery of similarities with their own culture, and the analogies they find, or construct, are thus restricted in their validity for 'human nature' as such. Life in a Victorian mansion may have seemed natural to a tiny part of humanity within a very limited period of time, but it will hardly appear to be so for the present reader and probably even less for the present scientist. Thus, the 'visual image' that first drew A. S. Byatt to her topic is also one of the aspects that actually undermine the analogy between human beings and the ant heap as presented in her text. One could well argue that the closer the analogy between the Victorian mansion and the ant heap, the less it applies to humanity in all its cultural diversity. Neither can the wider historical context and the specific perspectives on human natures as evoked in Byatt's novella be taken as indications of biological universals, even if they appear as such to the protagonists. A good example is the topic of slavery. In "Morpho Eugenia" it is raised several times, and Matty at one point, possibly cynically, observes that slave-making ant species "resemble human societies in that, as in many things" (*Angels and Insects* 44). In a later passage, slavery seems to be linked to biologically determined aspects of human behaviour,

while culture may offer a chance to overcome this cruel and barbarous practice (cf. *Angels and Insects* 93-94). Of course, the perspective on slavery has changed since mid-Victorian times, and at present it is hardly seen as a natural aspect of human social organization. Consequently, E. O. Wilson treats it as a transitory element of human societies, and its continuity is ultimately counteracted by a recalcitrant biology which differs distinctly from the ants':

The territorial expansion of the state, by making enslavement of other people profitable, temporarily solves the economic problem. Were human beings then molded by the new culture, were they to behave like the red *Polyergus* ants for which slavery is an automatic response, slave societies might become permanent. But the qualities that we recognize as most distinctly mammalian—and human—make such a transition impossible. (*On Human Nature* 80-81)

The historical displacement of the sociobiological discussion in "Morpho Eugenia" thus serves as a comment on the selection of examples and arguments within the recent controversy—and analogy, as the text points out, is indeed "a slippery tool" (*Angels and Insects* 116).

However, another form of analogy may also be detected on a different level. If we look at the ant colony as a superorganism in which a multitude of organisms make up a larger organism, we face a form of self-similarity in which the part resembles the whole to a certain extent. And this self-similar structure can also be found in the novella itself. Within the larger narrative, there is Matty's story "Things are not what they seem." June Sturrock argues that this is a coded warning and invitation to William (95), and, on the level of plot, this is unquestionably the case. But the story goes beyond a simple warning by retelling "Morpho Eugenia" in the guise of a fairy tale with many mythological motifs.

Moreover, later in the text there is also the anagram game which leaves the reader with a riddle, as the word following 'insect' and 'incest' is left out of the narration and we only learn that the next and

last word is 'phoenix.' As June Sturrock points out, the missing word must be 'sphinx,' and thus we once again find a self-similar structure as the four words sum up the complete text.

First [William] must understand the relation between incest and insect—that is, he must see that Bredeley Hall is, like the ant-hills, essentially an incestuous society [...]. Only then is he enabled to see Matty as the sphinx who set him the liberating riddle [...]. After this, he can liberate himself and become like the phoenix, reborn out of his own ashes. (Sturrock 100)

I want to suggest that there is even more to this riddle. The original riddle of the sphinx did not call for the recognition of her identity but for self-awareness. Oedipus, who is conspicuously absent from Byatt's text which evokes the sphinx so often, has to realise that man, i.e. he himself, is the answer to her question. Similarly, he will later have to recognize that he himself is the cause of the catastrophe that devastates Thebes. The problem of self-recognition is, of course, also at the core of many discussions in "Morpho Eugenia." June Sturrock draws attention to a quote from *Possession*: "Are we automata or Angelkin?" (273); for the novella it could be rephrased as 'are we mere beasts or are we something special?' The answer to this question may well be the sphinx, which is half human and half animal,⁸ and thus it is not only William who has to make sense of the anagram game, but also the reader who has to fill in the gap in order to realize that s/he may also be addressed in the solution to the riddle. Moreover, this solution is part of a game; the game itself is part of a self-similar structure, and this structure actually links the narrative to the scientific image of the ant colony as a superorganism. In this regard, Byatt's text argues that story telling and the construction of the scientific concept follow similar patterns, and thus, as June Sturrock points out, "she refuses to accept the division between the 'two cultures' of science and the arts" and her writing is indeed "concerned with the actual operations of the mind, the brain, whether physical or metaphysical" (101).

NOTES

¹Actually the concept is older and can already be found in the writings of Herbert Spencer, but ultimately also in Hobbes' *Leviathan* and various other organicist models of societies.

²Indeed, a similar ambivalence also briefly appears in Hölldobler's and Wilson's book *Journey to the Ants* when they write about the ant heap as a superorganism: "The queen is the heart of this entity in both a hereditary and a physiological sense. She is responsible for the reproduction of the group, both the generation of the parts and the creation of new superorganisms" (37-38). Of course, the queen is the heart of the ant heap only in the metaphorical sense, physiologically she corresponds to the womb as the authors point out later in the same book: "The queen is the reproductive organ, the workers the supporting brain, heart, gut, and other tissue" (110).

³The most obvious candidate for this role seems to be Lady Alabaster ("William felt that this immobile, vacantly amiable presence was a source of power in the household," *Angels and Insects* 31), even though the daughters have now taken over as the reproductive agencies in the mansion. But then in the course of the text Eugenia also seems to develop into an immobile fat queen following the model of her mother.

⁴In this article the authors reject a radical adaptationist and functionalist perspective on evolution with attempts to explain each and every aspect of the organism (including possibly its behaviour) as a genetic adaptation to particular natural demands and circumstances in favour of the concept of organisms as integrated wholes which cannot be reduced to the sum of their genes.

⁵This aspect of Harald Alabaster's writings once more seems a little anachronistic to me. Indeed, Hermann von Helmholtz first formulated his concept of heat death in 1854, but, as Peter Freese points out, "the dire implications of the Second Law were scarcely recognized by the general educated public" (101).

⁶I would like to point out here that my argument does not intend to take sides in the discussion about sociobiology. I am not a biologist and thus I do not feel in a position to evaluate the scientific fundamentals on which sociobiological assumptions rest. However, in a context which addresses human nature as such it is hard to remain completely neutral, and so I have to admit that while quite a few suggestions about evolutionary foundations for complex social interaction have the true ring of just-so stories for me, some sociobiological arguments do sound very reasonable and have influenced my views on human behaviour. But this is of no concern in this paper.

⁷E.g. in their controversial study *A Natural History of Rape* Thornhill and Palmer present their readers with a scorpion fly which is endowed with an appendage that serves as a tool for rape (63-64)—but then it is not exactly clear what the evolutionary link between the scorpion fly and human beings may be.

⁸The motif can also be found in H. G. Wells' *The Time Machine* where a white sphinx marks the border between the beastly Morlocks and the angelic Eloi.

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