

# Conclusion

The main conclusion of this volume is rather conservative in the sense that it merely points to something that is already visible in plain sight. That is, the fact that there is continuity across nature and that humans evolved from other forms of life. Nobody needed this book, or biosemiotics in general, in order to find out that. A walk outside one's office or house or school reveals humans' embeddedness in nature, with plants, animals and insects being encountered in large numbers even while one fails to notice pets inside the house, the microbes in the office or the frenetic endosemiosis within the human body. What is needed, perhaps, is a reminder that all the paraphernalia of culture – the contents of the bookshelves, the online content available through televisions and computers, keepsakes, interior design, utensils, toys and all the signs they comprise – are not only located within the same broad space inhabited by the signs of microbes within and without the human body, but that the palpable signs of culture are also continuous with these identifiably organic signs. Some parts of biosemiotics reveal that to study life is to study signs. To see the world in a grain of sand ... The aim of this book has been to emphasize that to study signs is to study life. If none of the other implications of biosemiotics for understanding culture are made clear, hopefully this one will be.

Even the most focused investigation of a cultural phenomenon, blinded to any natural context, is engaged in an analysis of nature. Revealing that and elucidating the context, is another matter. As has been seen, semiotics represents the most meaningful first step towards carrying out this task, although semiotics has not always been able to escape institutional determinations that have impeded the task. While semiotics has carried out work of immeasurable importance in opening out all of culture for analysis, the infusion of biosemiotics prompts semiotics to cast its net so as to analyse sign systems in the whole of nature. The implication is that understanding culture is not just about interrogating how humans operate amid signs, but how they operate amid nature (comprising signs), what distinguishes their cognition and their being as endosemiotic phenomena among other organisms and in the cosmos. As has been seen, what does distinguish humans is the inhabiting of a particular *Umwelt*, a particular kind of modelling comprising nonverbal and verbal

modes upon which rest the unique phenomenon of language. The powers of cognitive differentiation that this *Umwelt* affords give rise to culture and make culture what it is. While culture rests on language, the implication is not that culture is to be understood through language alone. Such glottocentrism is a 'forgetting' of the dual verbal/nonverbal heritage of human modelling. The implication for culture is that humans are special because of the way language arises and what it enables humans to do; but humans and their culture cannot be divorced, or the object of a break in continuity, from nature; for even in language humans still carry the heritage of their consanguine natural forms. The ontogenetic and phylogenetic 'forgetting' of humans' nonverbality is not to be underestimated. At the same time, the contribution of nonverbality to processes of 'knowing', as well as considering aspects of culture as kinds of 'knowing' rather than attributing that faculty to  $\Phi$ -sciences alone, is another implication of biosemiotics (and cybersemiotics) for culture and cultural analysis.

At the level of consideration of humans' position within sociality and cultural exchange, biosemiotics has further implications for culture. Those positions in the analysis of culture and in the popular imagination which posit individualism, sometimes along with the assertion that humans are exceptional, are especially undermined by biosemiotics. Both humanism and individualism, separately and together, are rendered incompatible with biosemiotics' repeated finding of continuity of signs and continuity across nature. Evidence of humans' collective bearing – from endosemiosis, through early evolution of hominids, in elementary social groupings or swarms, through to complex societies – is always on the table for biosemiotics. So, while biosemiotics identifies agency and degrees of freedom across the realms of nature, seemingly making it compatible with some perspectives on culture which eschew dual scientism and exalt agency in culture, that compatibility is very much qualified – to the point of being illusory. Put another way, 'agency' does not correspond to individualism; agency takes place within constraints and within collectivity.

This is not to forget that biosemiotics also has implications for those more radical perspectives which are sceptical of agency and see humans as subjects, traversed by culturally constructed power relations. Cultural construction, here, often implies 'language' or 'construction in discourse'. However, as has been seen, the conception of 'sign' that informs biosemiotics far surpasses the explanatory power of 'discourse'. It not only covers nonverbal signification and semiosis beyond the human, but also carries with it an understanding of how human signs fluctuate between mind-dependency (construction) and mind-independence. Hence, for the natural subject, living wholly (non-human animals) or partly (humans) in a world of objects, the other is both everything and oneself. The implications of this, for the temptations that might exist in current understandings to maintain the binary of self/other – as well as individual/collectivity, agent/subject, verbal/nonverbal, non-human/human, matter/mind, living nature/culture – are clear: not only are the binaries false oppositions but the human *Umwelt*, characterized by its constant drive to expand its range, should not allow such binaries to hinder its enrichment. As Peirce (1.135) would say, "Do not block the way of inquiry". That culture and the study of culture have the foremost role to play in this should go without saying.

Accompanying this implication is the observation that the natural ways of culture, once more, are often overlooked. Ethics, seemingly the product of good will and the programmes that result from such will, has been shown to be a by-product with a natural grounding. Necessarily, this cultural implication is more speculative in that there is much of practical ethics that does rely on a willed programme at present. The biosemiotic conception of ethics, exemplified by parenthood, is no doubt everywhere in nature, begetting further signs of ethics. The implication for culture is that there is a need to renew the search for ethics in these terms.

Sometimes programmes for ethics are called ‘ethical’ codes because they promote putatively inviolable instructions. In ethics, as elsewhere in culture, codes cannot be relied upon to work in this mechanical way. Nor should it be assumed that there are codes in nature that act as a model for this kind of mechanism in culture, however much this volume has been dedicated to elucidating biosemiotic continuity across nature. As Hoffmeyer and Emmeche (2007: 51; emphasis in original), warn in relation to the assumption that culture is a by-product of germ cells, “*The semiotics of nature should not be confused with the semiotics of human culture*”. The key point in emphasizing continuity is the *type* of activity involved rather than the *token*. As has been stated, not all coding is like the human invention called cryptography. If anything in respect of codes is continuous across nature (and therefore in culture) it is their fallibility. Not all understandings of culture posit the strong efficacy of codes, even while the idea has a grip on the popular imagination; at the same time, not all understandings of culture insist that culture is without codes or that it is completely individual, another idea with a strong grip on the popular imagination. The implication of the discussion of codes in this book is, predictably, that understandings of culture might be enhanced if the processes of invariance – as opposed to mechanical coding – that appear in nature were seen in continuity with like processes in the compartment of nature called culture. Biosemiotics has an extremely useful and illuminating approach to invariance that it has inherited from Peirce: the habit. However, a more refined understanding of the process, still, is offered by Deacon in the biosemiotic idea of ‘constraint’. This also promises to account for what is lost as well as what remains in natural development.

The issue of what is lost in culture is no doubt a perennial one. Culture is always ‘in crisis’. However, there are cogent reasons to assume that humans are at a critical point in the early decades of the twenty first century. As has been seen, social formations are preparing to organize themselves for a future where technology will transform traditional forms of culture. This is a charitable stating of the case. Another way of describing the matter is to say that crass instrumentalists are dismantling the arts and the humanities that study them at the very moment when technologies are emerging that those instrumentalists can reference in their myopic cost-cutting exercises. To state the matter in this way does not amount to Luddism. The implication from biosemiotics, here, concerns the shearing of humans’ instruments of cognitive differentiation and the out-sourcing of memory and experience. The implication, put bluntly, is that aesthetic behaviour *is survival* – it locates humans in their world and enables humans to conceptualise the furnishing of that world. It has indispensable use-value and, in fact, underpins the very science and technology that

economic instrumentality seeks to exploit. Foresight, to recognize how seemingly non-purposive signs enhance the *Umwelt*, is paramount, as well as analytic acumen in understanding the relation of aesthetic signs to human existence in the past, the present and the future. In sum, addressing the big question of aesthetic behaviour requires experienced, interdisciplinary technicians to be centrally involved. There can be no equivocation on this. Naturally, when the long-term benefits of an activity are obscure, there is difficulty in making them the core of a consensus. Yet, such difficulties are not insurmountable, particularly as the topic under discussion is one that cuts to the very nature of humans' existence and their most 'instinctive' pursuits. Sebeok (1979b: 42) notes, with a nod to Peirce,

The propensity to classify seems to have acquired, through evolution, diminishing survival value, but then so did sex: humans can enjoy either, but most tokens, though pleasurable per se, are not biologically relevant. Only the type of activity has a clearcut biological function.

Although restaurants have garnered business for centuries, and prostitution has flourished for longer still, nobody has suggested that eating and sex should only ever be undertaken for the purposes of generating profit. Possibly the ultimate cultural implication of biosemiotics is that the absurd proposal for only ever engaging in aesthetic behaviour for brute economic purposes should be banished from the realms of common understanding.

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