



On the Corporeality of Culture

Introductory

We are doubly biased. On the one hand, the long tradition of (particularly Western) philosophy and religion has by its own terms established humans as the centre of the world and the universe. Installing our own species at the top of the evolutionary tree has further strengthened the kind of self-image. Misguided by *anthropocentrism*, we have created a strong feeling of dominance over ‘others’ who are, as a rule, perceived as inferior to us. Such anthropocentric arrogance has caused a chasm that in effect divides the advanced mental faculties that humans display from the mere physical survival instincts that we find in non-humans.

Further, *cerebrocentrism*, which emphasises the intricacy and importance of the brain and central neural structures (often pointing out that the human brain is the most complex physical structure in the known universe), is taken as an argument in favour of discontinuity. Since the human brain is usually metaphorically taken to be the ‘seat’ of intellectual functions and propositional thought, this has resulted in the further separation of person and brain (e.g. Fuchs, 2021) and, in the final instance, mentality and matter, i.e., mind and body.

With the shifting of focus on *culture*, which we like to view as the most authentic outcome of the human mind, this kind of scheme seems completed. Enculturation served to illustrate and prove human superiority over the rest of the existing living world, on the one hand, and also to contribute to the opposing of the ‘higher’ and supposedly ‘lower’ faculties; the cultured self and ignorant body, on the other hand.

In celebrating the cultural ascent of the human mind, the body has been doomed to the merely mechanical and to motility. For too long we have lived with this bipolarity as the only game in town. In recent decades, however, new scientific ‘games’ have been invented; new research data have become available that allow for the novel possibilities of interpretation when it comes to the subtleties of the *nature – nurture* relation.

One such strategy in investigating human nature is leading us to the conclusion that, instead of contrasting human cultural endeavours and our raw biology, we might be better off to consider both as being mutually co-conditioned. This is because with our bipedal assumption of the upright position we have not left our terrestrial destiny behind (or underneath); as we began to use language (which, incidentally, developed out of the sensory-motor actions), our capacity for expression and communication advanced beyond anything

previously known – and yet we could not claim to be the only creature capable of sharing and communicating.

“There is no one ‘explanation’ of man, biological or otherwise. In the end, even the strongest causal explanation of the human condition cannot make plausible sense without being interpreted in the light of the symbolic world that constitutes human culture.” (Bruner, 1990: 138).

Bruner is right in stating that there is no single (scientific) aspect that can fully capture the complexity of human nature; and he is also right in emphasizing the unique role of culture. Yet the sentence can be read as somewhat contradictory, obviously favouring the latter. However, just as a living organism should not be studied in its biological niche, isolated from the social impacts and cultural influence, so it is one-sided to take culture as the sole explanatory key – as an intellectual infrastructure detached from the corporeal.

When Kroeber and Kluckhohn published their *Culture: A Critical Review of Concepts and Definitions* in 1952, there were reportedly more than 160 definitions of culture. For these authors, culture

“... consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artefacts; the essential core of culture consists of traditional [...] ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other hand, a conditioning elements of further action.” (Kroeber and Kluckhohn, 1952: 357)

The definition proves robust as other authors (e.g. Grant Ramsey), more than a half century later, might seem to do no more than fine-tune the original version. Ramsey’s definition reads:

“Culture is information transmitted between individuals and groups, where this information flows through and brings about the reproduction of, and a lasting change in, the behavioral trait.” (Ramsey, 2018: 348)

Defining culture as the processing of information and practice is broad enough to account for both human and non-human version of enculturation, and in that sense is advantageous. Also, among other things, it avoids the not particularly useful distinction between ‘high’ and ‘low’ forms of culture. On the other hand, its severe weakness is that it leaves the aspect of embodiment entirely out of sight and in such a way shows a lack of concern not only with how information is spread and communicated but also with how it is generated. The question would not be philosophically challenging if we were (already) digital beings, operating on information processing. However, we are clearly not (yet) what the transhumanist prophecy envisages we will one day be, but are rather living, organismic beings, for whom the body matters and is still the main vehicle of coping in the world; not only sensory-motor but cultural too.

“By ‘culture’ I mean the extensive accumulation of shared, learned knowledge, and iterative improvements in technology over time. Humanity’s success is sometimes accredited to our cleverness, but culture is actually what makes us smart. Intelligence is not irrelevant of course, but what singles out our species is an ability to pool our insights and knowledge, and build on each other’s solutions. New technology has little to do with a lone inventor figuring out a problem on their own; virtually all innovation is the reworking or refinement of existing technology. The simplest artefacts provide the test cases with which to evaluate this claim, because clearly no single person could invent, say, a space station.” (Laland, 2017: 7)

To simplify and summarise: culture is a collective phenomenon. Individually inspired achievement can only become an element of culture if it is accepted by the society distributed within it, and further transferred to the next

generations. Once integrated into communal behaviour it gets promoted to what we designate as culture. The key concept in this definition is technology (presumably used in the widest sense) but, again, what is left out of the concern is who/what is in charge of it. It says nothing about the mode of transfer of ‘know how’ and how it is instantiated in human interactions with the environment and the social and cultural world. For this is not just a matter of intellect, deliberation or reasoning.

Enculturation requires the entire living, biological, embodied being. The art of engaging with the world is variegated and multifaceted and requires more than the transfer of information or the competent use of technology. If the mind is increasingly seen as not being ‘within the head’ (Clark and Chalmers, 1998) or governed by intellect (Noë, 2005), then there are reasons enough to believe that the same holds for culture. It, too, is not to be identified with some internal processing decoupled from the body, but rather as the mind’s creation resulting from the mutual cross-fertilization of the biological and the symbolic.

Richerson and Boyd (2004) are right when they proclaim: ‘not by genes alone’. However, we might respond in a parallel manner by saying: ‘not by culture alone’. Sufficient research has been done in the past decades to support the conclusion that biology and culture do not run in parallel or separately. Neither genes exclusively nor memes (Dawkins 1976, 2006) are the sole and self-sufficient means of explaining human nature and behaviour.

As Laland puts it nicely:

“... our species most cherished intellectual faculties were themselves fashioned in a whirlpool of *coevolutionary feedback* in which culture played a vital role. Indeed, my central argument is that no single prime mover is responsible for the evolution of the human mind.” (Laland, 2017: 3; emphasis added)

That is to say, neither culture nor biology alone are the ‘single prime movers’. What moves human evolutionary progress is as much a matter of nature as it is of nurture. In mutual co-evolving we have grown to be what we are – unique, yet not decoupled from our evolutionary heredity. There is a long tradition according to which the biological being is viewed primarily as the burden of the *animal symbolicum*, devoted to creating unbounded cultural marvels. The illusion is created that embodiment is an obstacle to mind’s imaginary tasks. However, from what we have learned from the philosophy of embodied mind and cognition in the recent decades, this is clearly not the case. The tendency to distance ourselves from own body and its evolutionary memory is thus unfounded and needs to be critically examined.

No matter how hard *homo sapiens* tries, I can never oust the ape from me (De Waal, 2005); or my inner fish (Shubin, 2008; Balcombe, 2016), or elephant (Safina, 2015) or other vertebrate. But far from being a curse, this is a rich wellspring of our cultural life – a source without which enculturation could never be a human endeavour but, at best, the artificial manipulation of symbols. Thus, as long as it is an embodied affair, it is also a human one. After all, we share more commonality with our closest kin than we are prone to admit. There is a growing consensus among leading scientists that bodies and minds more ‘primitive’ than ours are capable of mental faculties which we had thought, until recently, were human’s exclusive privilege. In that sense it is instructive to take a glimpse at *The Cambridge Declaration on Consciousness* (Low, 2012) where we find the following formulation:

“Birds appear to offer, in their behavior, neurophysiology, and neuroanatomy a striking case of parallel evolution of consciousness. Evidence of near human-like levels of consciousness has been most dramatically observed in African grey parrots. Mammalian and avian emotional networks and cognitive microcircuitries appear to be far more homologous than previously thought. Moreover, certain species of birds have been found to exhibit neural sleep patterns similar to those of mammals, including REM sleep and, as was demonstrated in zebra finches, neurophysiological patterns, previously thought to require a mammalian neocortex. Magpies in particular have been shown to exhibit striking similarities to humans, great apes, dolphins, and elephants in studies of mirror self-recognition.”

The final passage brings a sort of conclusion:

“The absence of a neocortex does not appear to preclude an organism from experiencing affective states. Convergent evidence indicates that non-human animals have the neuroanatomical, neurochemical, and neurophysiological substrates of conscious states along with the capacity to exhibit intentional behaviors. Consequently, the weight of evidence indicates that humans are not unique in possessing the neurological substrates that generate consciousness. Non-human animals, including all mammals and birds, and many other creatures, including octopuses, also possess these neurological substrates.”

Most recently, in *The New York Declaration on Animal Consciousness*, launched on 19 April 2024 at New York University (initiated by Kristin Andrews, Jonathan Birch, and Jeff Sebo), and signed by 480 scientists, it is further confirmed that there exists

“... the extremely strong evidence that mammals and birds have conscious experience. By consciousness, the document is referring to sentience, awareness, and the ability to experience positive and negative interactions with the world, such as pain and pleasure. It goes on to argue that, based on the science, there is a convincing possibility that other non-mammals – e.g., fish, reptiles, amphibians, and some invertebrates, including octopuses, crabs and insects – might also be conscious.”

Both declarations put in a nutshell what animal studies has already richly documented: we are not the only creatures in the living world with mental faculties. The bodies and brains of organisms simpler than ours are also capable of fairly complex behaviour to which we can ascribe (even some simple forms of) enculturation. We knew already that many animals vocalize, but we are nowadays certain that they possess language (Meijer, 2020; Mustill, 2022) and can, like whales, communicate over long distance (Bakker, 2022); that they sing (e.g. male mice: Chabout *et al.*, 2015; Dune, 2011; also whales: pioneering work has been done by Roger Payne in 1970) and produce music (Steingo, 2024; Gray *et al.*, 2001); that they can empathize (Gruen, 2015; De Waal, 2015) and show altruism (Bowles and Gintis, 2011; Axelrod, 1984; Dugatkin, 1997); that elephants possess remarkable memory and mourn years after they have lost those they felt closely related to (not only their own relatives but human carers too; Safina, 2015); so that animal cognition (Andrews, 2020; Bekoff and Jamieson, 1995) and animal thought (Griffin, 1984; also Heyes, 2018) are no longer an oxymoron.

One can envisage the possibility that in the near future a Declaration on Animal Enculturation will be formulated, bringing the current state of knowledge about the mental capacities of species other than ourselves a significant step further in that we will bring to attention of a larger audience the fact that living organisms much simpler than us are capable of behaviour that can be qualified as cultural. This, in turn, is a motive to re-examine the meaning and role of embodiment in the context of enculturation.

To relate the *animal symbolicum* and the *animal* seems, then, more natural than it once appeared to be, because animality is but another (definitely less abstract) way to designate embodiment or corporeality. In order to show that such binding is neither arbitrary nor unfounded, let us recall a more recent scientific source, that of the ‘animal turn’ that has already brought to philosophical attention the awareness that ‘others’ – regularly seen in a discriminatory way – share with us some of the traits we might previously have thought were exclusively human.

The aim in composing this collection was, therefore, primarily to draw attention to a topic to which philosophy has not yet paid adequate attention to. The editorial ‘strategy’ was not so much to look for a coherent unit, but rather to select contributions from various domains and take them as exemplary for how broad and multifaceted this landscape of *bio-cultural co-evolution* can be. It is also meant as a sort of invitation for further, more thorough investigations into the interrelatedness between *nature* and *nurture*, biology and culture, body and symbolization, corporeality and creativity. As corporeality (according to some of the contributions in this volume) may be taken to lead us to animality, this opens up a novel perspective on issues that may prove relevant for a spectrum of disciplines, from philosophical anthropology to the philosophy of mind and consciousness, and also cognitive science. In addition, the ‘animal turn’ may also stimulate us to reconsider some more fundamental issues in the light of the newly gained knowledge that animal studies have richly provided us with. It may then grant corporeality a new dimension and couple it with enculturation. It may also sober us, in that culture is no longer understood as an ethereal infrastructural add-on, but rather as a phenomenon that is rooted firmly in biological evolution and therein inseparable from it.

References

- Andrews, K. (2020): *The Animal Mind. An Introduction to the Philosophy of Animal Cognition*, 2nd edition. Abingdon, Oxon: Routledge.
- Axelrod, R. (1984): *The Evolution of Cooperation*. New York: Basic Books.
- Bakker, K. (2022): *The Sounds of Life. How Digital Technology is Bringing Us Closer to the Worlds of Animals and Plants*. Princeton – Oxford: Princeton University Press.
- Balcombe, J. P. (2016): *What a Fish Knows. The Inner Lives of Our Underwater Cousins*. New York: Scientific American.
- Bekoff, M. – Jamieson, D. (eds., 1995): *Readings in Animal Cognition*. Cambridge (MA): The MIT Press.
- Bowles, S. – Gintis, H. (2011): *A Cooperative Species. Human Reciprocity and its Evolution*. Princeton: Princeton University Press.
- Bruner, J. (1990): *Acts of Meaning*. Cambridge (MA): Harvard University Press.
- Chabout, J. et al. (2015): “Male mice song syntax depends on social contexts and influences female preferences”, *Frontiers in Behavioral Neuroscience* 9 (2015), art. no. 76, doi: <https://doi.org/10.3389/fnbeh.2015.00076>, pp. 1–16.
- Clark, A. – Chalmers, D. (1998): “The Extended Mind”, *Analysis* 58 (1998) 1, pp. 7–19.
- Dawkins, R. (1976): *The Selfish Gene*. Oxford University Press.
- Dawkins, R. (2006): *The Selfish Gene. 30th Anniversary Edition*. Oxford University Press.
- De Waal, F. (2005): *Our Inner Ape*. New York: Riverhead Books.
- De Waal, F. (2015): “Evidence Implies That Animals Feel Empathy”, *Scientific American*

- (1 September 2015). Available at: <https://www.scientificamerican.com/article/evidence-implies-that-animals-feel-empathy/> (accessed on 1 March 2025).
- Dugatkin, L. A. (1997): *Cooperation among Animals. An Evolutionary Perspective*. Oxford: Oxford University Press.
- Dune, R. (2011): “The mystery of the singing mice”, *Smithsonian Magazine* (11 May 2011). Available at: <https://www.smithsonianmag.com/science-nature/the-mystery-of-the-singing-mice-1566363/> (accessed on 1 March 2025).
- Fuchs, T. (2021): “Person and Brain: Against Cerebrocentrism”, in: T. Fuchs, *In Defense of the Human Being. Foundational Questions of an Embodied Anthropology*, Oxford University Press, pp. 107–123.
- Gray, P. et al. (2001): “The Music of Nature and the Nature of Music”, *Science* 291 (2001), no. 5501, pp. 52–54, doi: <https://doi.org/10.1126/science.10.1126/SCIENCE.1056960>.
- Griffin, D. R. (1984): *Animal Thinking*. Cambridge (MA): Harvard University Press.
- Gruen, L. (2015): *Entangled Empathy. An Alternative Ethic for Our Relationships with Animals*. New York: Lantern Books.
- Heyes, C. (2018): *Cognitive Gadgets. The Cultural Evolution of Thinking*. Cambridge (MA): Belknap Press.
- Kroeber, A. L. – Gluckhohn, C. (1952): *Culture, A Critical Review of Concepts and Definitions*. Cambridge: The Museum.
- Laland, K. N. (2017): *Darwin's Unfinished Symphony. How Culture Made the Human Mind*. Princeton & Oxford: Princeton University Press.
- Low, P. (2012): “The Cambridge Declaration on Consciousness”, *Proceedings of the Francis Crick Memorial Conference*, Churchill College, Cambridge University, 7 July 2012, pp. 1–2.
- Meijer, E. (2020): *Animal Languages*. Cambridge (MA): The MIT Press.
- Mustill, T. (2022): *How to Speak Whale. A Voyage into the Future of Animal Communication*. London: William Collins.
- Noë, A. (2005): “Against intellectualism”, *Analysis* 65 (2005) 4, pp. 278–290, doi: <https://doi.org/10.1093/analys/65.4.278>.
- Ramsey, G. (2018): “What is animal culture?”, in Andrews, K. – Beck, J. (eds.), *The Routledge Handbook of Philosophy of Animal Minds*. London – New York: Routledge.
- Richerson, P. J. – Boyd, R. (2004): *Not By Genes Alone. How Culture Transformed Human Evolution*. Chicago: The University of Chicago Press.
- Safina, C. (2015): *Beyond Words: What Animals Think and Feel*. New York: Picador.
- Shubin, N. (2008): *Your Inner Fish*. New York: Vintage Books.
- Steingo, G. (2024): *Interspecies Communication. Sound and Music Beyond Humanity*. Chicago: University of Chicago Press.

Zdravko Radman