Whence and whither social anthropology^{1} Harvey Whitehouse

Social anthropology began by asking big questions about the origins and causes of human nature, society, culture, and history. The intellectual founders of the discipline (in the 19th and early 20th centuries) were enchanted by the idea that societies evolve, but they lacked the tools to build up a plausible account of those evolutionary processes and were subsequently castigated by generations of anthropologists for producing theories that were either unverifiable or, if rendered in a testable form, patently false.

The apparent failure of early explanatory ambitions in the field, together with growing anxiety about the association between those ambitions and imperial colonial projects, brought grand theoretical aspirations almost to the brink of extinction. This intellectual retreat began with a shift away from why-type questions towards how-type questions. Instead of asking about causes and origins (why are societies and cultures the way they are?) social anthropologists increasingly restricted themselves to problems of function and structure (how do sociocultural systems fit together?). The French anthropologist, Claude Levi-Strauss, among other great anthropologists of the 20th Century, never entirely reconciled himself to this demotion of the explanatory enterprise. As his British colleague Meyer Fortes once wistfully observed, the 'lure of the pourquois' remained irresistible for Levi-Strauss – albeit tantalizingly out of reach. By the close of the last century, however, even generalizing efforts in the study of structure and function appeared to some anthropologists hopelessly unproductive. Many had by then abandoned theory altogether in favour of exclusively humanist agendas, concerned with interpretation, phenomenology, literary artifice, and postmodern critique.

Almost unobserved, however, some of anthropology's neighbours had been making some startling discoveries. After a long period in the theoretical wilderness, largely under the grip of behaviourism, scientific psychology underwent a dramatic revolution. The invention of computers led, by the middle of the 20th Century, to radically new models of information processing which, taken together with advances in evolutionary biology and the neurosciences, opened up a new window on human psychology and its evolutionary history.

A mass of scientific research now points to the naturalness of various features of human thinking and behaviour. To qualify as 'natural' such features must emerge in a similar fashion in all normal human beings without the need for deliberate instruction or training (barring pathology – itself

often a valuable source of insight into natural cognition). [2] These aspects of human nature shape and constrain sociocultural systems even if, reciprocally, at least some of those features may also be 'tuned' by cultural environments. [3] Whereas many social anthropologists today take it as self-evident, for instance, that any psychological differences between *men and women* must be *exclusively* the effects of varying sociocultural, political, or economic institutions, there is increasingly persuasive scientific evidence that some of the contrasting tendencies we observe in male and female psychology are partly rooted in biology (e.g. varying testosterone levels during foetal brain development) [4]. A key question for the anthropological study of gender must now be both whether and how historically constituted sociocultural environments impact on the expression of biologically-based sex differences and vice-versa. The nature of human minds is salient also for an understanding of economic behaviour, political strategizing, and systems of kinship, marriage, and descent (to take some of anthropology's traditional heartland subject areas) as well as more fashionable areas of research, for instance the study of performance, art, and display or of materiality, discourse, and embodiment.

But while some social anthropologists have finally begun to appreciate the need to integrate their findings with those of neighbouring human sciences, this remains largely a minority concern. Pascal Boyer has recently argued cogently that social and cultural anthropology has become preoccupied with the production of 'relevant connections', at the expense of erudite scholarship and the systematic testing of scientific theories.^[5] What counts as an authoritative body of work, or even an individual authority, is hotly contested by anthropologists. There is no agreed method of assessing the relative worth of competing contributions. There are no standard authoritative textbooks. Intellectual factions continually coalesce around fashion-leaders and then disperse. The privileged mode of research dissemination is the meandering monograph or reader rather than short and pithy articles. And the argument of authority (despite the contested nature of that authority) rules supreme – such that merely alluding to a fashion-leader is treated as equivalent to evidential support.

Boyer's bleak diagnosis is hard to contest. Social and cultural anthropology began with scientific ambitions and it proceeded to build up an impressive corpus of scholarship on comparative ethnography (for instance in the highly specialized study of systems of kinship, marriage, and descent). But nowadays science and erudition have been pushed to the sidelines. The crucial question, to which Boyer's chapter does not directly address itself is *why*.

Our sorry predicament stems, I will argue, from the limitations of our folk ontological knowledge and the fact that, as a consequence, social science is really hard to do (or at least to do well). Reasoning about sociocultural phenomena doesn't come naturally. Or to put it more precisely, we humans lack adequate intuitive machinery for reasoning about highly elaborated social morphology. As our societies have grown in size and complexity, we have witnessed the emergence of a vast plethora of specialized offices and corporate groups based on a broad range of sorting principles: kinship, descent, rank, caste, ethnicity, nationality, and so on. Categories of office, coalition, and class are no more than idealized models of how the social world is organized, rather than precise descriptions of how it operates on the ground. But they provide robust schemas for individual behaviour, cumulatively instantiating patterns that people reciprocally interpret in terms of those schemas. But these schemas are a relatively modern and potentially dispensable

accretion to human thinking, too recent in our evolutionary history to have led to specialized cognitive skills for reasoning about social complexity. The same could not be said for patterns of thinking in many other ontological domains.

As part of our evolutionary endowment, we possess dedicated intuitive machinery for reasoning about physical properties (such as solidity and gravity),^[7] biological properties (such as essentialized differences between natural kinds),^[8] and psychological properties (such as a capacity to empathize with suffering).^[9] Our intuitive physics, intuitive biology, and intuitive psychology may have to be substantially revised in light of the discoveries of *scientific* physics/ biology/psychology but our intuitions often *also* deliver useful reference points and pedagogic tools. For instance, while our intuitions about the discreteness and stability of natural kind taxonomies are inconsistent with the diachronic character of evolutionary processes, nevertheless they provide a convenient on-the-hoof framework within which to conceptualize speciation.

Problems arise, however, when some of our intuitively grounded ontological commitments also serve as markers of identity. In order to function in that way, such commitments must cause us to differ discernibly from other people so as to become a locus of conflict. If you and I share the intuitively grounded explicit belief that certain features of the natural environment are the outcome of intentional design, then we can live in peace with that delusion. But if somebody challenges those beliefs with an alternative account (e.g. that the features in question were caused by some other agent or by no agent at all) we have a basis for conflict, especially where competition for resources, either symbolic or material (or both), depends on who comes down on which side of the debate. In this particular case, some evolutionary biologists and their supporters have been drawn into protracted disputes with young earth creationists and proponents of intelligent design. In scientific circles, however, these kinds of battles tend to be somewhat peripheral to the day-to-day business of formulating hypotheses and gathering data to test them. Any competent biologist who has the slightest sympathy for certain variants of intelligent design, would (despite this oddity) be doing the same kind of science as anybody else in that field. Likewise, an astrophysicist with theistic commitments is not necessarily hampered in the conduct of good scientific research on the origins of the universe that would be recognized as such by atheistic colleagues. Imagine, by contrast, a domain of scholarly enquiry that based its theories on multiple and conflicting intuitions about the basic nature of the phenomena under study. It would struggle to get off the ground because of interminable turf wars among competing coalitions with widely differing foundational assumptions about the nature and purpose of scholarly enquiry. Unfortunately, we don't have to imagine it. That is exactly the problem, or at least has been the problem historically, with social and cultural anthropology.

Since we lack dedicated cognitive machinery for reasoning about social complexity, we are prone to *borrowing* intuitions proper to alien ontological domains. Consequently social scientists at turns reify institutions, biologize social categories, anthropomorphise offices, and mentalize corporate groups. Consider the following examples in scholarly sociologizing.

Instances of *teleological* reasoning about the social are obviously rampant in functionalist and Marxist traditions in the social sciences. For example, the theory of social functions (as elaborated by several generations of British anthropologists since Malinowski) maintained that every social institution serves to bolster some other institution (or cluster of institutions) so as to contribute

to the maintenance of stable social systems. Thus, the ritualized abuse of a monarch in some African kingdom might have the social function of giving public expression to structural tensions running through society (e.g. between commoners in opposition to an exploitative aristocracy and monarchy or between loyal commoners and the king in opposition to plotting royal heirs, and so on) while publicly affirming in the concluding rites that unification of the kingdom is both necessary and desirable in spite of this. [10] At the core of this mode of social theorizing is the idea that rituals are like tools, with specific functions, and offices (such as the kingship) and social categories (such as commoner clients) are like artefacts that are made and remade through the application of those tools. Marxist scholars have often adopted similar strategies of reasoning, except that the functions of political, legal, and religious institutions are typically said to serve the interests not of society as a whole but of a particular sector of society (the ruling class). [11]

Just as we are prone to deploy artefact cognition in sociological reasoning, so we are also inclined to treat certain types of persons as natural kinds, based on analogical extension of intuitive knowledge about the biological world. The temptation to biologize the social world grows stronger as societies become larger, more heterogeneous, and the division of labour more elaborate. It is no accident that Emile Durkheim coined the term 'organic solidarity' to characterize this type of social morphology. Biologizing the social can lead us also to essentialize institutions, especially where particular offices or membership of social groups and categories are transmittable from parent to offspring. Where that is not the case (for instance where there is great occupational mobility, where people join and leave clubs and associations at will, where religious affiliations are chosen rather than ascribed, etc.) we may be less likely to essentialize the social. But where people's roles and identities are determined by birth and shared with ancestors, the speciation of social categories is hard to resist.

Despite or perhaps because of the extensive tendency for the man or woman 'on the street' to biologize social categories (for instance in racial stereotyping) this way of reasoning is highly problematic for liberal academics, nowadays at least. Efforts, particularly in the nineteenth century, to carve up humanity into distinct races based on phenotypic characteristics seems to most contemporary social scientists at least as distasteful as it is biologically indefensible.[12] But that is not to say that intuitive biology has ceased to play a role in social theorizing. A particularly widespread, if largely unexamined practice in social and cultural anthropology is (and probably has always been) to talk about cultural traditions as at least implicitly analogous to biological species, especially when threatened with extinction. There are striking continuities for instance between the ways in which some anthropologists reason about the rights of small-scale societies to preserve their traditional beliefs and practices, and the way conservationists campaign for the protection of endangered species. Even though anthropologists have become increasingly sensitive to the contested nature of cultural traditions, and their embedding in wider regional and global processes of economic expansion and political struggle, there remains a widespread intuition that all traditions should be respected and preserved, that there is no moral high ground beyond the local cultural universe from which we can justly impose reform. And from that relativistic perspective cultural and linguistic diversity comes to be valued by more or less explicit comparison with the taxonomic richness and diversity of the natural world.

Just as we are tempted to borrow from artefact cognition and intuitive biology when reasoning

about complex sociocultural phenomena, we are no less inclined to draw on our *intuitive psychology* for similar purposes. For instance, the so-called 'culture and personality' school in American anthropology, inspired by the ideas of Franz Boas and Sigmund Freud, was premised on the idea that variable childrearing practices lead to the predominance of certain personality types at a population level, allowing us to generalize about tribes and nations rather as we might about the character of an old friend. In France also the tendency to anthropomorphize social groups and categories has been a recurrent theme, featuring prominently for instance in the ideas of *L'Année Sociologique* whose members talked freely and enthusiastically about such things as 'collective memory'⁽¹³⁾ and 'collective conscience'.⁽¹⁴⁾ Some of these ideas have enjoyed a renaissance in recent years – indeed, around the turn of the millennium it was practically impossible to find a major conference in any of the arts, humanities, or social science disciplines that did not in some way emphasize the theme of memory, and in particular its putatively collective or social character as understood by social theorists.

The trouble with grounding our ideas about the sociocultural realm in intuitive thinking borrowed from other domains is not merely that we discover these to be, inevitably, inadequate tools for the job. True, social and cultural institutions are not really artefacts with functions, organisms with essences, or minds with collective personalities or memories. But if that were the only problem, it would be relatively easy to surmount (in comparison with the more intractable problem to which we presently turn). After all, mature sciences are accustomed to explaining that our intuitions - for instance about the cosmos, or the natural world, or the mind - are only going to take us so far and then we have to abandon them. It is not that those intuitions then disappear. It may still seem to us that the sun moves across the sky (rather than the earth round the sun) or that some kind of intentional agent is responsible for selecting the characteristics of biological species (rather than effects of random mutation and ecology on the fitness of organisms). But with sufficient education and intelligence we can realize, and remember when reasoning explicitly, that things are not as they seem. Where it gets tricky is when people's identities become wrapped up in a particular intuitive construal of the world. This is how Galileo wound up under house arrest as punishment for his heretical claims about the structure of the solar system. Even today intuitive forms of biblical literalism are belligerently espoused by Christian fundamentalists. The problem gets worse, much worse, when the same phenomena attract mutually exclusive and competing intuitive claims, upon which professional reputations are pinned.

Every time a new school of thought has emerged in social anthropology, anchored in borrowed intuitions, it has eventually provoked a backlash of objections from those inspired by alternative intuitions. Often the arguments are less about the issues at stake and more about whose intuitions should prevail. Ultimately, however, all are losers. Functionalism, for instance, is now considered a dirty word in social anthropology where once it had been a more or less paradigmatic method of ethnographic enquiry. Why? Because whereas we could trace the functions of real tools and artefacts to the intentions of ancestral (and sometime historical) individuals, nobody could explain how institutions came to have the useful properties that functionalists ascribed to them. Of course there were other causes of embarrassment too: we found that societies were seldom if ever trapped in a state of functionally integrated equilibrium: looking a little *closer* we always found a writhing morass of contestation and struggle rather than consensus and harmony; looking a little *longer* we

found upheaval and transformation rather than stability and social reproduction. But although often cited as the reason for functionalism's downfall, such considerations are less than compelling. There is no reason why tendencies towards functional integration should not be possible to demonstrate in principle, and arguably these have been repeatedly demonstrated in practice. So we return to the real nub of the problem: if institutions really do have functions then this cannot be understandable in terms of intuitive teleology. An alternative possibility is considered presently. Before we can begin to contemplate solutions to this sorry state of affairs, however, we have to attend to an even deeper tragedy. Disillusioned by all attempts to discover a sociological method grounded in stable intuitions, social theorists in the second half of the last century began to look for ideas with increasing desperation almost anywhere. The structure of natural language seemed to many to be a promising starting point, not least because its systemic character. For instance, here in France Claude Levi-Strauss's structuralist paradigm was inspired in no small part by the linguist Ferdinand de Saussure's observation that not only are most of the sounds of a words discernible only on the basis of arbitrary phonetic differences ('bat' being distinguishable from 'mat' by virtue of a small and entirely arbitrary difference between two bilabial consonants) but so too are many of the conceptual structures to which those sounds refer (e.g. 'river' being distinct from a 'stream' in English because the former is larger and wider while 'fleuve' is distinct from 'riviere' in French because the former flows into the sea). [16] Both the phonetic and semantic properties of words seemed to be determined by arbitrary systems of differences, an insight that Levi-Strauss and his followers enthusiastically transferred and extended in the analysis of a wide variety of cultural forms: myths, rituals, kinship, descent, marriage, culinary traditions, and so on. This way of thinking emphasized the relativity of cultural systems, both in terms of directly observable properties (behaviours and artefacts) and interiorized but distributed inner states (meanings and values). But it also greatly exaggerated the importance of binary logic in both language and culture.[17] After all, much of the conceptual content entailed by the concept 'river' is held in common with the concept 'fleuve' and not all variability across languages/cultures may be said to result from arbitrary differences between signs (e.g. the sounds of speech or the concepts they signify).

Levi-Straussian structuralism founders ultimately on the narrowness and triviality of its account of the cognitive foundations of cultural recurrence and variation. Soon it too was abandoned and replaced by ever more desperate strategies, such as Clifford Geertz's brand of 'interpretivism' which sought to detach sociocultural phenomena from mental activity entirely, arguing with varying degrees of coherence that culture occupies an ontological domain of its own and can only be described and interpreted in terms belonging to that domain. These developments, as well as the rise of many varieties of post-structuralist and postmodernist critique, all have something curiously in common: they take sociocultural phenomena to be fundamentally text-like, allowing interpretive flights of fantasy extending far beyond the dull world in which everyday culture is produced and transmitted. Authors rapidly became distracted by the suggestiveness of their own language through the creation of jargon and stylistic innovations, decorating the limited interpretations of informants with vastly more fanciful and appealing interpretations of their own. In this runaway inflation of ideas, almost anything goes, as long as it is new and different. Soon the idea of culture as text is not enough, it must be continuously *reconceived* 1201, for instance

as something to be experienced, [21], embodied, [22], or, as one leading anthropologist has recently suggested, 'enwinded'. [23]

We can only escape this descent into absurdity by finding a robust and encompassing scientific framework on which to construct our questions and pursue answers. Such a framework exists: evolutionary theory, since at least the time of Darwin, has proven to be an exceptionally robust method of explaining the anatomy, appearance, behaviour, psychology, history, and development of our species. Despite some false starts and blind alleys, efforts to explain recurrence and diversity of sociocultural traits within this framework, both in humans and other animals, is generating cumulative and therefore increasingly sophisticated bodies of theory based on the formulation of precise and testable hypotheses. [24]

Through the lens of evolutionary theory we can conceptualize and explain sociocultural phenomena by answering four major kinds of interrelated and complementary questions, what Nikolaas Tinbergen called the 'four whys': a functional why, concerning the adaptive value of the trait in comparison with others; a causal why, concerning the mechanisms required to produce it; a developmental why, concerning the processes by which the trait emerges in the growth and maturation of the individual; and an evolutionary why, concerning the phylogeny of the trait, its appearance via a succession of preceding forms. These four whys are intimately interrelated even in accounts of cultural group selection. Suppose, for instance, we discover that groups performing certain kinds of rituals tend to absorb or destroy groups that lack such rituals (making the rituals in question a between-group adaptation and possibly also an in-group adaptation if there is variability in the accrual of individual advantages), we can only fully explain the emergence and spread of these functional properties by understanding the psychology required to produce the successful pattern of ritualized behaviour, its developmental history, and the constraints on cultural innovation set by prior ritual forms on which the current institution has been modelled, in other words the evolutionary history of the cultural trait.

One may suspect that evolutionary explanations of sociocultural phenomena furtively sneak in old arguments, and their problematic intuitive assumptions, through the back door. The notion, for instance, that a certain kind of institution might help to reproduce the society in which it occurs (in evolutionary formulations a perfectly respectable hypothesis) may seem to be indistinguishable from the kind of outmoded functionalism that anthropology has largely abandoned, and surely founders on the same errors of intuitive teleological reasoning. Recall, however, that the problem with functionalism was that it failed to specify the mechanism by which socially useful traits came into being. The intuitive solution, based on teleological reasoning, leads hopelessly to notions of intentional design and *not* to Darwinian evolution. [26] It is precisely these intuitive errors that need to be avoided. The same may be said of our accounts of proximate causation. Successful accounts fractionate sociocultural phenomena into component features that are explainable in terms of discrete suites of causes rather than luring us back into familiar traps of reification and anthropomorphism.

By way of illustration, consider the discovery (by social anthropologists Alan Fiske and Nick Haslam) that recurrent features of cultural rituals closely resemble the symptoms of obsessive compulsive disorder (or OCD),^[27] a correspondence that Pascal Boyer and Pierre Lienard have recently sought to explain in terms of the workings of a specialized cognitive system

(dysfunctional in OCD patients) concerned with triggering precautionary responses to potential hazards. While this new body of research may significantly advance our understanding of some features of ritualized behaviour, it certainly does not (and is not intended to) explain in general terms why people perform rituals or why they vary in frequency and emotionality, or why they recruit various ideas about the involvement of supernatural agents, and so on. So easily is this point misunderstood, that that authors of the hazard-precaution theory of ritual were tempted to forewarn readers that they were offering not a theory of ritual but a theory of 'XB29' (a random string of letters or numbers chosen to represent the specific aspects of ritualized behaviour picked out by their theory). There is little intuitive (or even culturally familiar) about this procedure. While that may be a problem in communicating the value of this approach to wider audiences, it is also a great strength if we are dealing with phenomena that conflicting intuitions have led us to argue about so unproductively.

Much of social anthropology nowadays is 'mindblind' but more generally the discipline has developed a kind of evolutionary myopia. The future of anthropology lies in the development of much sharper vision in these areas. Anthropology not only needs to be informed by major discoveries in neighbouring fields but it can and should be a major a player in making those discoveries. It remains one of the broadest of all the human sciences and its emphasis on cross-cultural comparison based on long-term field research makes it also uniquely informed on questions of cross-cultural recurrence and variability. Despite my reservations about some recent trends in the discipline, at the core of social and cultural anthropology remains an enduring commitment to the production of careful and rigorous ethnography. It is also noteworthy that some of the most important developments in the cognitive science of culture have been spearheaded by scientists originally trained in social anthropology. Anthropology has made (and continues to make) valuable contributions that will, if we are wise, be put to increasingly effective use in the scientific study of our species' social and cultural achievements.

REFERENCES:

Atran, Scott 2002. In Gods We Trust, New York: Oxford University Press.

Baron-Cohen, Simon 2003. The Essential Difference: Male and Female Brains and the Truth about Autism. Basic Books

Bloch, Maurice 1983. Marxism and Anthropology: The History of a Relationship. Oxford: University Press.

Bloom, Paul 2000. How Children Learn the Meanings of Words, Cambridge, Mass.: MIT Press.

Boyd, Robert and Richerson, Peter J. 2005. Not by Genes Alone: How Culture Transformed Human Evolution. Chicago, IL: University of Chicago Press.

Boyer, Pascal 1993. "Cognitive Aspects of Religious Symbolism" in Pascal Boyer (ed.) Cognitive Aspects of Religious Symbolism, Cambridge: University Press.

----2001. Religion Explained: the evolutionary origins of religious thought, New York: Basic Books.

-----Forthcoming. "From Studious Irrelevancy to Consilient Knowledge: Modes of Scholarship in Anthropology" in Ted Slingerland and Mark Collard (eds.) Integrating Science and the Humanities: Interdisciplinary Approaches. Oxford: University Press.

Boyer, Pascal, & Lienard, Pierre 2006. "Why Ritualized Behavior? Precaution Systems and Action-Parsing in Developmental, Pathological and Cultural Rituals" in *Behavioral and Brain Sciences* 29: 1-56.

Carey, Susan 1985. Conceptual Change in Childhood, Cambridge MA: MIT Press.

Coombe, Rosemary 2008. "Encountering the postmodern: new directions in cultural anthropology" in Canadian Review of Sociology, Volume 28 Issue 2, Pages 188 – 205.

Durkheim, Emile 1964 [1915] *The Elementary Forms of the Religious Life* London: Allen and Unwin. Farah M.J. and Wallace, M.A. 1992. Semantically-bounded anomia: implications for the neural implementation of naming. In *Neuropsychologia* 30: 609-621.

Firth, Raymond,1964. Essays on social organization and values London: University of London Athlone Press.

Fiske, A. P., & Haslam, N. 1997 'Is obsessive-compulsive disorder a pathology of the human disposition to perform socially meaningful rituals? Evidence of similar content' in *Journal of Nervous & Mental Disease*, 185: 211-222.

Gellner, Ernest 1992. Postmodernism, Reason and Religion. London: Routledge.

Gluckman, M. 1962. Order and Rebellion in Tribal Africa. London: Cohen and West.

Goldschmidt, Walter. 1996. Functionalism. In David Levinson and Melvin Ember (eds.). Encyclopedia of Cultural Anthropology, Vol 2. New York: Henry Holt and Company.

Halbwachs, Maurice 1950. La mémoire collective, Paris: Presses Universitaires de France.

Hastrup, Kirsten and Hervik, Peter 1994. Social experience and anthropological knowledge. London: Routledge.

Henrich, N. and Henrich, Joe 2007. Why Humans Cooperate: A Cultural and Evolutionary Explanation. Oxford: Oxford University Press.

Hillis, A.E. and Caramazza, A. 1991. 'Category-specific naming and comprehension impairment: a double dissociation. In *Brain* 114: 2081-2094.ngold, Tim 2010. "Walking in the Air: on winding paths and the enwindment of the body" In Marchand, Trevor, ed. *Making Knowledge: Special Issue of the Journal of the Royal Anthropological Institute*. Oxford: Wiley-Blackwell.

Leach, Edmund 1954. Political Systems of Highland Burma: A study of Kachin social structure. London: University of London Athone Press.

----1989. Claude Levi-Strauss. Chicago: University Press.

Leslie, Alan M. 1994. 'Pretending and believing: issues in the theory of ToMM' in Cognition Vol. 50, pp 211-238.

McCauley, Robert N. (forthcoming). The naturalness of religion and the unnaturalness of science.

McCloskey, M. 1983. "Intuitive Physics", Scientific American, 248(4), 122-130. Povinelli, Daniel. 2000. Folk physics for apes. Oxford: University Press.Pedwell, Carolyn 2010 Feminism, Culture and Embodied Practice: The Rhetorics of Comparison. London: Routledge.

Peers, Laura 2007. "On the social, the biological—and the political: revisiting Beatrice Blackwood's research and teaching" in David Parkin and Stanley Ulijaszek (eds.) Holistic Anthropology: Emergence and convergence, Oxford: Berghahn Books.Preston, Stephanie D. & de Waal, Frans, B.M. 2001. Empathy: its ultimate and proximate bases. Behavioural and Brain Sciences, 25 (1): 1-20.

Sosis, Richard and Alcorta, C. 2003. "Signalling, Solidarity, and the Sacred: The Evolution of Religious Behavior." *Evolutionary Anthropology*, 12: 264-274.

Sperber, Dan 1996. Explaining Culture: a naturalistic approach, London: Blackwells.
Strauss, Claudia and Quinn, Naomi 1997. A Cognitive Theory of Cultural Meaning, Cambridge: Cambridge University PressTinbergen, N. 1951. The Study of Instinct, Oxford: Clarendon.
Wilson, David Sloan 2002. Darwin's Cathedral: Evolution, Religion, and the Nature of Society

- This is an abridged version of an article originally published under the same title in Ted Slingerland and Mark Collard (eds.) Creating Consilience: Integrating the Sciences and the Humanities, reproduced here by kind permission of Oxford University Press.
- [2] E.g. Farah and Wallace 1992, Hillis and Caramazza 1991
- [3] McCauley forthcoming
- [4] Baron-Cohen 2003
- [5] Boyer forthcoming
- ¹⁶¹ Firth 1964, Leach 1954
- McCloskey 1983, Povinelli 2000
- ^[8] Carey 1985, Leslie 1994, Bloom 2000
- 191 Preston and De Waal 2001
- [10] Gluckman 1962
- [11] Bloch 1983
- [12] Peers 2007
- [13] Halbwachs 1950
- [14] Durkheim 1964
- [15] Goldschmidt 1996
- [16] Leach 1989
- [17] Boyer 1993
- [18] For a critical discussion, see Strauss and Quinn 1997
- [19] Gellner 1992
- [20] Coombe 2008
- [21] Hastrup and Hervik 1994
- [22] Pedwell 2010
- [23] Ingold 2010
- ^[24] Henrich and Henrich 2007, Sosis and Alcorta 2003, Boyd and Richerson 2005
- [25] Tinbergen 1951
- [26] Wilson 2002
- [27] Fiske and Haslam 1997
- [28] Boyer and Lienard 2008
- [29] Sperber 1996, Boyer 2001, Atran 2002