
Being, Humanity, and Understanding: Studies in Ancient and Modern Societies by G. E. R. Lloyd

Oxford/New York: Oxford University Press, 2012. Pp. 136. ISBN 978-0-19-965472-7. Cloth \$45.00

Reviewed by
Paul T. Keyser
Google, Inc. (Chicago)
paul.t.keyser.dr.dr@gmail.com

This volume is the latest, and worthy, installment in Lloyd's long project, in progress since his *Magic, Reason and Experience* [1979] or even his *Polarity and Analogy* [1966], to understand ancient mentalities, especially in the realm of natural science. The five chapters of this slim volume engage their material and the reader with verve and vigor, and deepen Lloyd's work in confronting ancient mentalities, particularly Greek and Chinese.¹

In this book, Lloyd announces his intent to strike a balance, as he did regarding cognition in [Lloyd 2007](#), 'between cross cultural universalists and cultural relativists', in particular here to illuminate 'what we may call cosmologies' [1]. Lloyd examines the terms of the debates, the character of the arguments, and the nature of the evidence, for two of what philosophers sometimes label the 'Big Questions', namely, what it is to be human [ch. 1] and what it is to understand the world around us [ch. 3]. Chapters 2 and 4 seem to this reader ancillary to those goals; chapter 5 sums up.

His data include not only ancient China and ancient Greece, as before, but also ancient Mesopotamia and modern anthropology of Amazonia (as in [Lloyd 2007](#), e.g., 143–149). In transgressing the modern disciplinary boundaries, Lloyd has shown himself to be a bold scholar (and fortune favors the bold). He has gone to the (considerable) trouble of learning Chinese and also

¹ Recent works by Lloyd mining that vein include: *Disciplines in the Making: Cross-Cultural Perspectives on Elites, Learning, and Innovation* [2009], *Cognitive Variations: Reflections on the Unity and Diversity of the Human Mind* [2007], *Ancient Worlds, Modern Reflections: Philosophical Perspectives on Greek and Chinese Science and Culture* [2004], and his joint effort with Nathan Sivin, *The Way and the Word* [2002], which is reviewed in [Keyser 2004](#).

the special discourse of anthropology when already a senior scholar: few scholars of any age in any field take such trouble; fewer still manage the journey with such aplomb. There are risks attendant upon such transgressions, both the risk of misunderstanding the less-familiar language as well as the risk that the natives of the transgressed field will dismiss the transgressor as a poacher. Lloyd is a genial Herodotus of modern academia, traveling widely, absorbing broadly, and returning with marvels. He would be the first to proclaim his results provisional and to acknowledge the concomitant necessity of revision.

Lloyd's first chapter, 'Humanity between Gods and Beasts?' serves to open the discussion with a well-chosen issue. Well-chosen because we can be nearly certain that the query regarding the nature and place of humans in the world in which we find ourselves has been raised in some form in every human culture that has ever existed. It is a query demonstrably present in ancient Greek and ancient Chinese sources, and has been a focus of recent attention in anthropological debate.

Moreover, the nature and place of humans in the world has previously been a focus for Lloyd himself, albeit with different goals. In his *Cognitive Variations* [2007], ch. 3 ('The Natural Kinds of Animals and Plants') addressed the possibility of discovering a definitive taxonomy of animals or of plants. Just as the boundaries between species of animals vary according to different models, so does the boundary between humans and 'other' animals. Whether in the Greek thinker Aristotle, the Chinese work *Huainanzi*, or the reports collected among the Itza' Maya of Guatemala (as read by Lloyd 2007, 46–49), the same system that classifies animals then extends to demarcating all of them from us: 'humans regularly emerge at the top as quite special animals' [Lloyd 2007, 55]. Earlier, in his *Ancient Worlds, Modern Reflections* [2004], ch. 11 ('Human Nature and Human Rights') also explored this issue, seeking to elucidate the varying bases for making moral claims, in so far as those bases relate to claims about the 'nature' of human beings. Here Lloyd's focus was on the boundaries within and without which moral responsibility could be assigned, especially male *versus* female and in-group *versus* 'barbarian'. Within ancient Chinese culture, humans were distinguished from animals by having moral sense [*yi*: Lloyd 2004, 158–159] and yet barbarians were qualified in many ways as being like animals [2004, 161], so that '[s]uch tolerance as the Chinese showed to other groups came primarily from an

effortless sense of their own superiority' [2004, 164]. Greeks too viewed barbarians as somewhat subhuman, e.g., being classified by Aristotle as 'natural slaves' [*Pol.* 1.3–4, 1253b–1254a]. Thirdly, the nature and place of humans in the world was a particular interest of Lloyd's teachers, Vernant, Detienne, and Vidal-Naquet, around the years 1972–1975, as Lloyd notes in the work under review [8n1] right at the beginning of this first chapter. The interest continues among many scholars and philosophers, as Lloyd notes [29], citing, e.g., Sorabji, *Animal Minds and Human Morals* [1993], an investigation of ancient thought on the nature and status of animals as cognitive agents.

Thus, Lloyd's choice of opening topic here is over-determined and familiar. Yet Lloyd does not merely re-present old ideas in new clothes (as some senior scholars have done): rather, somewhat like rotating a kaleidoscope while viewing the same scene, Lloyd shows us yet another aspect of the multifaceted issue under study.² Lloyd here [8–14] swiftly reviews various attempts in the ancient Greek (and modern Euro-American) tradition to find a distinguishing criterion that would securely differentiate animals from humans and shows how each in turns fails to be as rigid and reliable as its proponents claim. He points out how that unresolved debate caused the European conquistadors of the Americas to doubt the humanity of the humanoid beings dwelling there—just as the natives were in doubt about the humanity of the invading species [11]. I would just note that the problem had already been raised in (Late) Greco-Roman antiquity by Augustine, who in *The City of God* 16.8 queried whether 'monsters' are human and concluded that if they have souls, however they look, they must be human. He does not, however, provide a recipe for determining whether such beings, hypothetical to him, actually do have whatever a soul is. Lloyd's review of the Chinese evidence reiterates his thesis in *Ancient Worlds, Modern Reflections* [2004, 158–161], that humans are beings with moral sense—which raised issues of differing moral systems—or, according to other Chinese texts, that humans all share certain basic needs [17].

Turning to anthropology for further data about humans *versus* animals [17–21, 26–29], Lloyd makes use of the work of two students of Amazonia. One is Viveiros de Castro, the Brazilian anthropologist (influenced by Roy

² Lloyd indeed emphasizes precisely that point, referring to the multidimensionality of the phenomena [36–37]: cf. 2007, 41, 56–57.

Wagner), whose field-work in 1981–1988 concerned the Araweté (a tribe of the Tupi-Guarani people), and who aimed to demonstrate that it is their cosmology, rather than their ecology, that is constitutive of their society: the Araweté believe that they will become divine once they are slain and eaten by the gods.³ The other is Descola, the French anthropologist, whose field-work in 1976–1978 focused on the Achuar at a moment when competing Roman Catholic and Evangelical Protestant missionaries were active among the Achuar, and who aimed to mediate between the ecological and symbolic schools of anthropology.⁴ The two systems of Descola and of Viveiros de Castro, as Lloyd explains, provide radically different analyses [21]. But the dichotomy presented may be somewhat false. On the one hand, these analyses treat only two groups in one area—that is two more than we had when looking ‘only’ at ancient China and ancient Greece. Yet perhaps the apparent dichotomy would be ameliorated by considering similar analyses of, say, African or Siberian peoples. Then again, each anthropologist began his work with an explicit agenda so that care is needed when reading out of their work conclusions that do not accord with their agenda: such readings are a mediated interpretation, analogous to reading a modern scholar’s interpretation of, say, Aristotle, or of, say, the *Huainanzi*, rather than reading each of those ancient works directly. Moreover, the two anthropologists share a significant common formation: both were working within the (then-dominant) anthropological scholarly tradition of structuralism.

Nevertheless, Lloyd makes sensitive use of the data by turning back to the Greek and Chinese evidence, and considering the issue of differing ontologies [21–26]. In particular, he points out how the (eventually-dominant) four-element theory of the Greeks and the five-phase (*wu xing*) theory of the Chinese cannot simply be reduced to one another. But from each point of view, the other can be understood. That is—and this is a point Lloyd has stressed more than once—the models are not wholly incommensurable. Indeed, if different models were wholly incommensurable, how could anyone ever change their mind about models? How could Aristotle have developed a novel classification of animals and plants [Lloyd 2007, 53–54]? Likewise, we might ask, how could Dalton and others have developed the (modern)

³ See Rival 1993, Chernela 1994, and Schmidt 1997 for reviews of Viveiros de Castro’s work.

⁴ See Riviere 1987, 1995; Meggers 1999; and Fisher 1999 for reviews of Descola’s work.

atomistic model? And as Lloyd proposes, we can attempt to describe other people's lived experiences, 'their worlds ...so different from the one we usually take for granted, and yet not totally beyond our reach' [26]. Lloyd succeeds in showing how the question of humanness is a genuine problem and advocates that we regard that problem as an opportunity to broaden our investigations [29–30].

As noted, Lloyd rejects radical incommensurability [see esp. 2, 5–6, 24–26: cf. Lloyd 2004, 13; 2007, 159–160], and rightly so I would say. Now, taking the position that even profoundly differing models can be mutually comprehensible requires one to confront the question of how people can change their ideas and, thus, the associated problems of error [ch. 2] and of the limits of language to express ideas [ch. 4]. If all models are equally valid or if no analysis of any model is possible, then no error can ever be detected: and conversely, to claim that models may be compared and comprehended is to claim that they can be evaluated and that errors may be found within them. To revise is to acknowledge error and master it. (And error, *contra* the Stoics and other like-minded thinkers, comes in degrees in this our forever un-perfect world.) Thus, in ch. 2 [see also 3, 119], in order to manage our response to error, whether our own or others', Lloyd advocates three methodological principles [cf. Lloyd 2007, 56–57]:

- (1) attempt to employ actors' categories [35–36];
- (2) practice a charity of interpretation as advocated by the philosopher Donald Davidson and others [36]; and
- (3) recall that interpretation is provisional and thus be open to revision [36].

The claim that differing models can be comprehended is a claim that language suffices to communicate: as Lloyd remarks,

I have yet to hear of an anthropologist who returns from the field announcing that she could understand *nothing* about the people she was studying. [24: emphasis in original].

Thus, in ch. 4, Lloyd treats issues of mutual understanding between cultures, or even between actors within the same culture acting from within different frameworks by offering three insights. He introduces 'semantic stretch' as a covering term for various kinds of metaphor or manners of using terms [86]; this is a stronger form of the well-known technique of allowing for varying

semantic ranges of words. The deployment of this method will have similar effects to making use of actors' categories and charity of interpretation: that is, analysis will be more open to understanding and less focused on refutation. Second, he foregrounds the effect of the audience upon the discourse [81–84], what he called in *Demystifying Mentalities* [1990, e.g., 9–12, 126–131] 'the contexts of interpersonal exchange', and what is now commonly called the discursive context. As he notes, most Chinese writers on science addressed the emperor and spoke in the guise of a wise but submissive advisor (that is also true of many Latins and some Greeks of the Roman Empire, as has often been noted [see Keyser 2010, 870–874]). These diverging discourses are not sealed off from one another, no more than divergent concepts are wholly incommensurable [88]. Finally, he reprises his advocacy of allowing for multiple modes of analysis, i.e., the 'multidimensionality' of the data, as when one analyses color terms now using hue, now using luminosity, or as when one analyses substances of the world now in the Greek manner of elements, now in the Chinese manner of processes [36–37, 90–91: cf. Lloyd 2007, 41, 174].

The focus of the book is its longest chapter, i.e., ch. 3 ('Ancient Understandings Reassessed and the Consequences for Ontologies'), which addresses ancient science specifically in the sense that Lloyd (and this reviewer) use the phrase. Lloyd here restates his often-made case that there is such a thing as 'ancient science' [3–4], as he did, e.g., in *Ancient Worlds* [2004, ch. 2] and in *Disciplines* [2009, ch. 9]. In the latter, his formulation was particularly vivacious [159–160]:

How can we begin to understand how it was that—suddenly, or over a period of time—humans, who had had (on this view) no science at all up until then, came to practise this mode, or modes, of inquiry? It is crucial here to get clear how strong a claim for innovation is being made, and in what regard. Did the breakthrough (however understood) depend on new cognitive capacities, or merely on the new deployment of already existing ones? Either way there are problems. If we take the first option, what sense can we make of the idea of acquiring new cognitive capacities, and were they just confined to the scientists in question or did they somehow become more generally available? On the latter option, if the capacities were always there, why were they not used?

The hypothesis, that science somehow sprang full-grown from the brow of the Renaissance is, in short, absurd and no more likely than any theory of spontaneous generation or special creation. In the current work, Lloyd fo-

cuses on ‘Greece, China, and Mesopotamia especially—the relevant Egyptian data are in shorter supply and those from India are of very insecure date’ [48]. His caveats are valid but much work has been done to elucidate the sciences of the two cultures omitted here; in a longer book (and one can always wish for a longer book from Lloyd), they would find their natural place. He raises several arguments for considering there to have been scientific works in the three cultures that are in his focus. One is to point out that contemporary science proceeds by what one might call creative destruction, continually revising its results, which is to say, that modern science in essence presupposes the possibility of refutation [47]. He surveys in some detail the results of several generations of work by scholars on Mesopotamian astral sciences [48–50], likewise what we have come to know about Chinese mathematical and astral sciences [51–56], and then the recent consensus regarding Greek mathematical and cosmological arguments and disputes [56–61]. From that last survey, Lloyd elicits six points about Greek science [61–63]: namely,

- (1) ancient theorists seem intent on excelling rivals;
- (2) each offers an account that claims to see through the appearances to a hidden reality;
- (3) the accounts concern ‘nature’;
- (4) despite radical disputes, the actors perceived themselves as addressing common issues (i.e., a denial of incommensurability);
- (5) their views on nature are correlated with their views on human customs; and
- (6) they disagreed regarding teleology and each ontology implicated morality.

For all three cultures’ sciences, the prospect of disconfirmation is raised [50, 52–53, 56–57, respectively].

In his remarks on Mesopotamian sciences, Lloyd makes the unfortunate claim that ‘Neugebauer ...showed ...nothing but contempt for astrology’ [48]. That claim is not crucial for the development of Lloyd’s thesis and is incorrect. Otto Neugebauer in fact vigorously advocated the study of astrology in ‘The Study of Wretched Subjects’ [1951], reprinted as the leading article in his self-edited *Astronomy and History: Selected Essays* [1983, 3]—the title of the article is deliberately ironic, as an attentive reading of the article shows. Moreover, he produced (with H. B. van Hoesen) *Greek Horoscopes* [1959], a careful and thorough edition and translation of all the Greek (and Latin) horo-

scopes then known, both literary and papyrological. Neugebauer focused his work on the mathematics of ancient astronomy, which surely advanced our understanding of Greek and later astral sciences and their relation to Mesopotamian astral sciences. That focus is narrower than Lloyd's but many productive scholars of Greek sciences have had analogously narrow focuses: whether on the Hippocratics or on Aristotle or on Archimedes, and so on. (To be sure, this is the only error that I have spotted in this book.)

Then in ch. 5 ('Philosophical implications'), Lloyd examines the degree to which his investigations have clarified the chief interpretive issues in his book. Furthermore, he attempts to relate these results to contemporary 'strategic' problems, a goal also in view in his earlier works, especially in his *The Delusions of Invulnerability* [2005]. There we find ch. 1 ('The Pluralism of Philosophical Traditions') [esp. 32–35], in which he argues that the history of philosophy can be a resource for current critical evaluation and that we ought not to relegate philosophy to the academy. In ch. 2 ('Learned Elites: Their Training, Openness and Control'), Lloyd finds seven factors important for success whether in Greece or China [54–56] and relates them to the contemporary academy [57–61]: our problems are as theirs were but on a larger scale. The chapter on 'Audience and Assemblies' [ch. 3, esp. 81–86] studies how scholars and scientists can publish and receive productive criticism in different cultures and systems, as well as the role of political debate in their activities. (Chapters 4 ('The Delusions of Invulnerability'), 5 ('The Frailties of Justice'), and 6 ('Models for Living') are similar in import but do not touch greatly or directly on science *per se*.) In the work under review, Lloyd highlights four problems. The last of these, which he labels 'realism and relativism' [94, 102–105], relates closely to his first chapter on the ontologies of humans and animals. Animals, he argues, really do differ but when various cultures (including our own) attempt to construct a valid classification of those differences, various factors intrinsic to the culture or the animals render the classifications ragged at their edges. Procedures and styles of inquiry mean that there is no final taxonomy; but some taxonomies of any given kind are more accurate than others. That is, neither pure realism nor pure relativism can give a useful account: we need both.

Besides that last problem ('realism and relativism'), Lloyd addresses three other strategic problems:

- (1) incommensurabilities [93, 105–111],

- (2) objectivity [93, and 94–97], and
- (3) truth [93–94, 97–102].

Regarding objectivity, we cannot, insists Lloyd, impose our framework upon the ideas or frameworks of others; but when dealing with any alien framework, we must use the one we have to think with. The dilemma, suggests Lloyd, is evaded if we recall that any given framework (our own, say) 'is no monolith' [95], that each such framework was acquired through education, and indeed that each of us has acquired a slightly different version of the framework, where moreover, the acquisition of a framework is *ipso facto* the acquisition of knowledge and conceptual tools new to the acquirer. Thus, as we study other frameworks, we can revise and augment our own: the same kind of progress that we made as children we can all still make. As for truth, we cannot, insists Lloyd, rely on any naïve correspondence theory of truth, since we have no direct access to any unmediated reality; and yet mere consistency does not suffice, given the many examples of internally-consistent models that were eventually demonstrated to be false (or, as Lloyd says, 'palpable nonsense' [97]). Various criteria were proposed or deployed in ancient Greece and China, and this dilemma, suggests Lloyd, is evaded if we follow that lead and allow for various criteria of truth appropriate to varying situations. He cites the example of the ratio of the circumference to the diameter of the circle, which must be more precise for a mathematician than for a builder: that is, he advocates criteria that yield the 'approximately true' [101]. What is known to be true, is known to be true up to some limit. (Indeed, modern science exerts considerable effort to specify precisely its limits of accuracy.) As for incommensurability, the dilemmas posed by Kuhn regarding conceptual shifts are not so dichotomous as represented by him and others [106–107]: not only is it clear, e.g., that 'Galileo had a fair idea of what Aristotle meant' but modern readers manage to grasp the concepts of both (despite being separated by several further paradigm shifts). Likewise, the views of the anthropologists Descola and Viveiros de Castro do pose a challenge to views developed in the Greco-Roman tradition (or for that matter in the Chinese tradition) but 'they would hardly pose the kind of challenge they do if they were simply incomprehensible' [108].

Those problems are indeed worthy of further debate and study but it may be that they are not three separate problems. In each case, underlying the dilemmas exposed by Lloyd, is a common tension: between what is (par-

tially) known in one model or framework or paradigm and what is (partially) known in another. History shows that those tensions do get resolved, especially when a given model is confronted with a competing model or else is confronted with new evidence that serves to call portions of the model into question. That process can readily be understood as a kind of evolutionary meta-model of the development of science, as I have argued [2013]. That is no criticism of Lloyd, who was the original inspiration for the development of that approach in his early works *Magic, Reason and Experience* [1979, 226–267] and *The Revolutions of Wisdom* [1987, 50–171]. That I have taken that further than he has done is not, I hope, incommensurable with his work. That his work has inspired attempts to grasp the multidimensional nature of ancient science by many scholars is a testament to the enduring worth of Lloyd’s work, even when, nay especially when, his provisional framework is challenged in its turn.

BIBLIOGRAPHY

- Chernela, J. M. 1994. rev. Viveiros de Castro 1992. *Anthropological Quarterly* 67.2:96–98.
- Descola, P. 1986. *La nature domestique. Symbolisme et praxis dans l’écologie des Achuar*. Paris.
- 1994. *In the Society of Nature: A Native Ecology in Amazonia*. Cambridge, UK.
- Fisher, W. H. 1999. rev. Descola 1994. *Journal of Political Ecology* 6. See http://jpe.library.arizona.edu/volume_6/descolavol6.htm.
- Lloyd, G. E. R. 1966. *Polarity and Analogy: Two Types of Argumentation in Early Greek Thought*. Cambridge, UK.
- 1979. *Magic, Reason and Experience: Studies in the Origin and Development of Greek Science*. Cambridge, UK.
- 1987. *The Revolutions of Wisdom: Studies in the Claims and Practice of Ancient Greek Science*. Berkeley.
- 1990. *Demystifying Mentalities*. Cambridge, UK.
- Lloyd, G. E. R. 2004. *Ancient Worlds, Modern Reflections: Philosophical Perspectives on Greek and Chinese Science and Culture*. Oxford/New

- York. Available to subscribers at <http://www.oxfordscholarship.com/view/10.1093/0199270163.001.0001/acprof-9780199270163>.
- 2005. *The Delusions of Invulnerability: Wisdom and Morality in Ancient Greece, China and Today*. London.
- 2007. *Cognitive Variations: Reflections on the Unity and Diversity of the Human Mind*. Oxford/New York. Available to subscribers at <http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199214617.001.0001/acprof-9780199214617>.
- 2009. *Disciplines in the Making: Cross-Cultural Perspectives on Elites, Learning, and Innovation*. Oxford/New York. Available to subscribers at <http://www.oxfordscholarship.com/view/10.1093/acprof:oso/9780199567874.001.0001/acprof-9780199567874>.
- Lloyd, G. E. R. and Sivin, N. 2002. *The Way and the Word: Science and Medicine in Early China and Greece*. New Haven/London.
- Keyser, P. T. 2004. rev. **Lloyd and Sivin 2002** in *Aestimatio* 1:62–72. <http://www.ircps.org/aestimatio/1/62-72>.
- 2010. ‘Science’. Pp. 859–881 in A. Barchiesi and W. Scheidel edd. *The Oxford Handbook of Roman Studies*. Oxford/New York.
- 2013. ‘The Name and Nature of Science: Authorship in Social and Evolutionary Context’. Pp. 17–61 in M. Asper ed. *Writing Science: Mathematical and Medical Authorship in Ancient Greece*. Science, Technology, and Medicine in Ancient Cultures 1. Berlin/Boston. <http://www.degruyter.com/view/product/184917>.
- Meggers, B. J. 1999. rev. **Descola 1994**. *Journal of the Royal Anthropological Institute* 5.1:119–120.
- Neugebauer, O. 1951. ‘The Study of Wretched Subjects’. *Isis*. 42:111.
- 1983. ed. *Astronomy and History: Selected Essays*. Berlin/New York.
- Neugebauer, O. and van Hoesen, H. B. 1959. *Greek Horoscopes*. Philadelphia.
- Rival, L. rev. **Viveiros de Castro 1992**. *Man* ns 28.3:632–634.
- Riviere, P. 1987. rev. **Descola 1986**. *Man* ns 22.4:754–755.

- Riviere, P. 1995. rev. [Descola 1994](#). *Journal of the Royal Anthropological Institute* 1.3:656–657.
- Schmidt, D. 1997. rev. [Viveiros de Castro 1992](#). *American Ethnologist* 24.1:225–226.
- Sorabji, R. R. K. 1993. *Animal Minds and Human Morals*. Ithaca, NY.
- Viveiros de Castro, E. 1992. *From the Enemy's Point of View: Humanity and Divinity in an Amazonian Society*. Chicago.