

## REVIEW ARTICLES

### **On Values, Culture and the Classics — and What They Have in Common**

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Ralph M. Rosen and Ineke Sluiter (eds.), *Valuing Others in Classical Antiquity*. Mnemosyne Supplements 323. Leiden/Boston: Brill, 2010. Pp. xii + 476. ISBN 9789004189218. \$224.00.

#### 1

The editors of this collection of articles, the fifth in the series “Penn-Leiden Colloquia on Ancient Values”, have embarked on an enterprise whose troublesomeness might not have been evident right at the beginning. They set out to re-frame, and then re-examine, the ancient Greek and Roman evaluative concepts and terminology pertaining to trust, fairness, and social cohesion (or, as they put it, ‘the idea that people “belong together”, as a family, a group, a polis, a community, or just as fellow human beings’, 5), in light of the rapidly evolving fields of the social and life sciences. The opening paragraph of the introduction, which elaborates Ralph Rosen’s and Ineke Sluiter’s aim, appears to be a bold and welcome departure from the formulation of aims in a long gallery of published books on ancient morality and values. I quote it in full, warning that it may appear abstruse to scholars whose routine reading does not exceed the bounds of classics:

The scale of human societies has expanded dramatically since the origin of our species. From small kin-based communities of hunter-gatherers human beings have become used to large-scale societies that require trust, fairness, and cooperative behaviour even among strangers. Recent research has suggested that such norms are not just a relic from our stone-age psychological make-up, when we only had to deal with our kin-group and prosocial behaviour would thus have had obvious genetic benefits, but that over time new social norms and informal institutions were developed that enabled successful interactions in larger (even global) settings. “Market integration”, for instance, measured as the percentage of purchased calories, is positively correlated with a sense of fairness. And indeed, the more a community depends on the market for sustenance, the more important it is to have that market work as smoothly as possible: mutual trust and a shared sense of fairness are clearly helpful and may thus have coevolved. Larger communities will show a greater willingness than smaller ones to engage in the individually costly behaviour of punishment: the more strangers there are, the more important it is to stifle exploitative behaviors.<sup>1</sup>

However, coming to the articles themselves, one is struck by the relative lack of response to this editorial challenge. Only four out of seventeen contributors have adopted it as a

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<sup>1</sup> Chapter One: ‘General Introduction’, 1-14, at 1.

guideline to their papers. The rest have chosen either to ignore it or to pay it some weak lip-service. Rather than framing their ideas in terms of the rapidly evolving fields of the social and life sciences, these authors have framed them in terms of the age-old, unchanging philological method. Concepts such as genetic benefits, evolution, percentage of purchase calories, correlations, or co-evolution are conspicuous in their absence from their papers.

This state of affairs provides an opportunity for probing the reasons for the long-standing segregation of the classics from the sciences. Lest I be misunderstood, I should state right at the beginning that by raising this issue I do not mean to suggest that works that use traditional approaches are *necessarily* bad whereas works that reach out to scientifically oriented disciplines for inspiration and models are *necessarily* good. Methodological innovativeness and interdisciplinarity are no better guarantees of originality of thought than is adherence to traditional methods. Furthermore, good knowledge of the ancient languages, and training in classical philology, as well as ancillary disciplines such as epigraphy and papyrology, are indispensable for any investigation of ancient values. But are they enough?

The point I would like to make is — not entirely. As Rosen and Sluiter intuited, the traditional apparatus of classical training is only suitable for coping with the linguistic dimensions of norms and values. It is ill-suited to treating their biological dimensions — i.e., the psychological processes with which they are associated; for example, the effect of substances such as the hormone *oxytocin* on the formation of “tribal” or prosocial behaviour or on the positive evaluation of in-groups and the negative one of out-groups. This would have raised no problems, say thirty years ago, when there was wide agreement that values and norms belonged to the realm of “social facts”. Throughout most of the twentieth century, social facts were defined in conformity with the so-called “standard social science model”.<sup>2</sup> They were thought to be “things-in-themselves” that could not be reduced to anything “biological”: social actions stemmed, allegedly, from social forces, and these were spontaneously generated. The theory had a powerful grasp on the minds of scholars and the majority took it as self-evident.<sup>3</sup>

Problems arise today because the truism of that theory is no longer self-evident. Converging insights in the rapidly-evolving fields of the social and life sciences suggest that so far from being “things-in-themselves”, social facts are projections or extensions of the human body and of its underlying mechanisms. But before elaborating on this point I wish to comment briefly on the articles themselves.<sup>4</sup> I will begin with the four authors who did delve into the “alien wisdom” of disciplines outside the field of classics.

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<sup>2</sup> Cf. John Tooby and Leda Cosmides, ‘The Psychological Foundations of Culture’, in *The Adapted Mind*, ed. by Jerome Barkow, Leda Cosmides and John Tooby. New York – Oxford: Oxford University Press, 1992, 19-136, at 37.

<sup>3</sup> The anthropologist Robin Fox (*The Search for Society, Quest for a Biosocial Science and Morality*. New Brunswick and London: Rutgers University Press, 1989) styled this theory, ironically, as ‘the ideological linchpin of the social sciences’ (at 111).

<sup>4</sup> The articles are summarized usefully on pp. 7-12 of the book under review.

## 2

Targeting “communal values”, or, in social-Darwinist terms, ‘eusociality’ (16), John Bintliff<sup>5</sup> argues that changes in patterns of house and town planning from the Iron through the Archaic and Classic to the Hellenistic and Roman Age reflect different types of solutions to the problem of integration in communities whose populations had exceeded an initial membership of 150 to 200 persons. There must be something to Bintliff’s claim, but his hypothesis is not pursued systematically enough to exclude alternative explanations and his use of jargon makes it difficult to follow his demonstrations. Pride of place in this volume goes to Josiah Ober’s chapter,<sup>6</sup> which makes use of modern economic theory and social psychology. Ober argues that if we apply the distinction worked out in modern moral philosophy between deontological and utilitarian ethics to the Athenian evidence, it will become clear that the citizens who devised Athenian rules and institutions recognized the great instrumental value of foreigners to the Athenian economy, particularly in the fourth century, and devised policies for attracting them. These policies were characterized by features such as openness and impartiality of rules, and the access granted to foreigners to dispute resolution procedures on an equal footing with Athenians. This exemplary article must serve henceforth as the starting point for all discussion on the subject. Evelyn van’t Wout<sup>7</sup> sets out to explore ‘how some individuals in ancient Athens responded to a perception of being “undervalued” by others’ (179), and adapts, from social identity theory, the term “situations of critical reference”, which occur when the social status and renown of a community member is in jeopardy. Litigants in Athenian trials, she argues, often found themselves in such a predicament. Along with the juries, they took part in ongoing processes aimed not so much at resolving disagreements as at negotiating, and newly engineering, evaluations of status. This is *prima facie* an interesting and original idea, but needs to be further refined and tested against a wider list of law court cases to turn it into a really efficient analytical tool. Tazuko van Berkel’s<sup>8</sup> original piece draws on game theory and social psychology to capture the precise nature of the tensions between friendship and money, or morality and commerce, as encapsulated in Xenophon’s *Memorabilia*. Her major conclusion is that Socrates preferred, on moral grounds, long-term reciprocities of the sort evinced in friendship over short-term cycles of gratification of the sort evinced in commerce.

Five authors — Irene Polinskaya,<sup>9</sup> Nick Fisher,<sup>10</sup> Sarah Bolmarcich,<sup>11</sup> David Konstan<sup>12</sup> and Albert Joosse<sup>13</sup> — conceive of the study of certain words preserved in the

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<sup>5</sup> Chapter Two: ‘Classical Greek Urbanism: A Social Darwinian View’, 15-41.

<sup>6</sup> Chapter Seven: ‘The Instrumental Value of Others and Institutional Change: An Athenian Case Study’, 155-178.

<sup>7</sup> Chapter Eight: ‘Visibility and Social Evaluation in Athenian Litigation’, 179-204.

<sup>8</sup> Chapter Eleven: ‘Pricing the Invaluable: Socrates and the Value of Friendship’, 249-277.

<sup>9</sup> Chapter Three: ‘Shared Sanctuaries and the Gods of Others: on the Meaning of “Common” in Herodotus 8.144’, 43-70.

language of surviving texts as keys to the understanding of certain values pertaining to trust, fairness and social cohesion. These words are: *koinon* in Herodotus, *kharis*, *kharites* and its cognates in connection with Greek festivals, *philia* and *syngeneia* in Greek diplomacy, *philia* and *amicitia* in Greece and Rome, and *oikeion* and *oikeiotes* in Plato's *Lysis* (respectively). This is true, in a sense, but I keep wondering how much more could have been squeezed out of those texts had their authors ventured into those uncharted areas outside the classics.

Robert Wallace<sup>14</sup> offers a highly refined analysis of tragedy, in particular Sophocles' *Ajax*, to suggest that during the later fifth and fourth centuries, Athenian democracy became progressively more inclusive towards three formerly marginalized groups: women, slaves, and foreigners (though towards foreigners to a lesser extent). Few objections could be raised to this masterly executed piece. Matthew Christ<sup>15</sup> declares, somewhat surprisingly in light of his previous publications, that 'By most modern accounts, Athenians enjoyed a high degree of social cohesion and solidarity under the democracy' (205). Christ reaches the conclusion that 'The frequency with which litigants appeal for help from jurors suggests that the courts played a complex role in Athens, functioning not only as enforcers of laws and settlers of disputes, but also as venues in which ideals of community and solidarity among citizens were constructed and exploited' (229). Christ's trust in common sense and distrust of social theory make it difficult to gauge the originality of his contribution. Ivo Volt<sup>16</sup> probes Theophrastus' *Characters* for indications of social cohesion and a sense of "belonging together" in the community which it supposedly caricatures. His main conclusion is that Theophrastus' human types, who continually transgress social norms and display a general lack of social intelligence, may be taken more seriously as a source for the study of popular morality than has been suggested in previous literary research. Gerard Boter<sup>17</sup> scans Epictetus' *Discourses* in search of the ways in which Epictetus evaluates his students, as well as himself, 'with regard to their capacity for moral improvement and their proficiency in philosophy' (324). He finds that all, including Epictetus, are found to fall short of the high standard of virtue that he sets. Consequently they are all reproved, in harsh and hurtful tones, for the sake of the 'health' of their souls. Boter ends, however, with an air of optimism. Epictetus advises his students not to give up the struggle, since 'it pays to persevere in the long and winding road of προκοπή' (349).

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<sup>10</sup> Chapter Four: 'Kharis, Kharites, Festivals, and Social Peace in the Classical Greek City', 71-112.

<sup>11</sup> Chapter Five: 'Communal Values in Ancient Diplomacy', 113-135.

<sup>12</sup> Chapter Ten: 'Are Fellow Citizens Friends? Aristotle Versus Cicero on *Philia*, *Amicitia* and Social Solidarity', 233-248.

<sup>13</sup> Chapter Twelve: 'On Belonging in Plato's *Lysis*', 281-302.

<sup>14</sup> Chapter Six: 'Tecmessa's Legacy: Valuing Outsiders in Athens' Democracy', 137-154.

<sup>15</sup> Chapter Nine: 'Helping and Community in the Athenian Lawcourts', 205-232.

<sup>16</sup> Chapter Thirteen: 'Not Valuing Others: Reflections of Social Cohesion in the *Characters* of Theophrastus', 303-322.

<sup>17</sup> Chapter Fourteen: 'Evaluating Others and Evaluating Oneself in Epictetus' *Discourses*, 323-351.

In the first of the four remaining papers, all relating to Rome, Judith Hallett<sup>18</sup> explores the conception of family relationships from the perspectives of two noblewomen, Cornelia, the mother of the Gracchi brothers, and Sulpicia, the late first-century BCE elegiac poet. Hallett argues that both women use emotional appeals when attempting to motivate and persuade men, simultaneously identifying with and challenging the values associated with their deceased fathers. 'By so doing, Cornelia and Sulpicia testify to the power of Roman patriarchy and the individual, elite Roman patriarchal family, albeit in a distinctive, subversive way' (370). Cynthia Damon<sup>19</sup> asks how the egotist Cicero managed to keep his friendships alive through all the vicissitudes of a lifetime, and how he communicated to his friends the value he placed upon their friendship. Focusing on passages in which Cicero sees his own reflection in the eyes of his 'friends', Damon delineates the differences in his attitudes to three types of friends, represented by Paetus, Crassus and Antony, and Atticus. She attributes Cicero's success in preserving friendships to his *verecundia*, i.e. his sensitivity to the feelings of others and his reluctance to give offense. Aislinn Melchior<sup>20</sup> uses Sallust's *Bellum Catilinae* to illustrate the conceptual shift that occurs in civil wars through the changing view of fellow citizens as outside enemies. Kathleen Coleman<sup>21</sup> extracts expressions of evaluation used in epitaphs of gladiators, one of the most de-humanized human types. She concludes that even in the harsh context of gladiatorial games, positive evaluations were expressed about the gladiators themselves, their co-fighters (who could easily become their adversaries on the arena), and their troupes, so that a deep sense of community was fostered even in those dire circumstances.

On the whole, the seventeen contributors provide a rich tapestry of insights into the evaluation of the other in particular contexts and circumstances of the ancient world. The insights are, however, disparate and lack a unifying context. One searches in vain for a phrase that could capture the contributors' overall effect on our conception of the levels of trust, fairness, and social cohesion that prevailed in the ancient world.

### 3

The gulf of mutual incomprehension revealed in this volume between editors and contributors is symptomatic of a much deeper disagreement that exists today amongst classicists and ancient historians over the openness of their disciplines to external influences. The ensuing division into camps has been admirably captured by Timothy Doran in a review of a book on the demography of the Graeco-Roman worlds:

A culture war still tears at the Classics. One camp, the Literary Theorists, sees culture as independent of non-cultural forces, revels in truth's alleged elusiveness, distrusts science, and opines that the world is constructed of words. Another camp, the Social Scientists,

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<sup>18</sup> Chapter Fifteen: 'Human Connections and Paternal Evocations: Two Elite Roman Women Writers and the Valuing of Others', 353-373.

<sup>19</sup> Chapter Sixteen: '*Quid Tibi Ego Videor in Epistulis?* Cicero's *Verecundia*', 375-390.

<sup>20</sup> Chapter Seventeen: 'Citizen as Enemy in Sallust's *Bellum Catilinae*', 391-417.

<sup>21</sup> Chapter Eighteen: 'Valuing Others in the Gladiatorial Barracks', 419-445.

utilizes models derived from economics, political science, and demography, and sees the world as composed of physical elements. The Literary Theorists find charts full of information incomprehensible and deplore the Social Scientists' reduction of reality to numbers and generalizations, suspecting that political bias lies behind much scientific enterprise. The Social Scientists ridicule the Literary Theorists' befuddlement at the alleged kaleidoscope of human culture and deplore postmodernism's rejection, and relegation to scare-quote status, of science, facts, and truth. And an older third camp, the Historical Positivists, dismisses both literary theory and social-science theory, working particularly from surviving fragmentary evidence. Each group's only conceivable strategy is to produce scholarly work of as high a quality as possible to receive attention, readership, and praise in order to attract new graduate students into their factions, which will remain separate until or unless some presently inconceivable synthesis be achieved.<sup>22</sup>

It now needs to be pointed out that the division discussed by Doran forms part of a much wider breach between the humanities and the sciences, which can be traced back to René Descartes' seventeenth-century, dualist model of human nature. According to this model, the laws that govern the mind or soul differ from those that govern the body (hence the assignment of the 'soul' to the humanities, the 'body' to the sciences).<sup>23</sup> This conception, to be sure, has had many detractors over the years, but most attempts at displacing it have failed. Scholars have often pulled in different directions. For instance, G.M. Trevelyan reproached his fellow historians for forgetting their obligations to literature and for whoring after the false god of science.<sup>24</sup> In contrast, C.P. Snow, a scientist by training and a writer by vocation, bewailed the hostility between his scientist and literary friends:

For constantly I felt I was moving among two groups — comparable in intelligence, identical in race, not grossly different in social origin, earning about the same incomes, who had almost ceased to communicate at all, who in intellectual, moral and psychological climate had so little in common that instead of going from Burlington House or South Kensington to Chelsea, one might have crossed an ocean ... Between the two (i.e. literary intellectuals at one pole, scientist at the other) a gulf of mutual incomprehension — sometimes (particularly among the young) hostility and dislike, but most of all lack of understanding. They have a curious distorted image of each other. Their attitudes are so different that, even on the level of emotion, they can't find much common ground.<sup>25</sup>

Snow's book made a tremendous impression, but practical consequences have been scant. Attempts to reduce the gap came mainly from the side of the sciences, where the

<sup>22</sup> Timothy Doran, Review of Claire Holleran and April Pudsey, *Demography and the Graeco-Roman World: New Insights and Approaches*. Cambridge and New York: Cambridge University Press, 2011. Bryn Mawr Classical Review 2012.07.49.

<sup>23</sup> René Descartes, *Discours de la Méthode*. 1637. Part IV.

<sup>24</sup> G.M. Trevelyan, 'Clio, A Muse', 1903, 147-8, and abridged in *The Varieties of History. From Voltaire to the Present*. ed. by Fritz Stern, New York, 1956, 227-245.

<sup>25</sup> C.P. Snow, *The Two Cultures and the Scientific Revolution* (The Rede Lecture, 1959), New York, 1959: Cambridge University Press (at 2-5). To Snow this state of affairs appeared lamentable because 'The clashing point of the two subjects, two disciplines, two cultures — of two galaxies, as far as that goes — ought to produce creative chances' (at 17, my italics).

Cartesian position was gradually abandoned in the course of the twentieth century. Scientists nowadays work on the assumption of the sameness of body and soul; with the death of the body, the soul also ceases to exist. Moreover, new disciplines have evolved — such as ethology or sociobiology — that challenge the separation of soul from body through attempts to account for social behaviour in evolutionary or biological terms. However, all this has made small impression on humanists. To this day books are being published aplenty that take as their starting point the Cartesian separation of soul and body.

Worse still is the lot of culture, the focal point of all humanistic disciplines. Basically, culture is considered to be “something” that exists independently of biological forces, often figuring as the almost perfect antonym of the “somatic” or the “genetic”. The outlandish ideas to which this conception has given rise are staggering. Here is a small sample. ‘Man has no nature; what he has is history’, wrote the great Spanish philosopher Ortega y Gasset.<sup>26</sup> The somatic aspects of human nature, claim some post-modernists, should be treated as a sub-species of politics or ideology.<sup>27</sup> Sexuality, according to David Halperin, is ‘a cultural production’, representing ‘the appropriation of the human body and of its erogenous zones by an ideological discourse’.<sup>28</sup>

There is, moreover, a widespread belief, particularly within the camp Doran calls ‘Literary Theorists’, that biology, and even more so genetics, is some kind of Mephistophelian pseudo-science, designed mainly to incite to bigotry and racism.<sup>29</sup> (This is, in fact, one of the arguments formally adduced for distancing the humanistic disciplines from the sciences.) It is indeed true that the unholy alliance between genetics and extreme political ideologies had monstrous consequences during the last century. But it is not true any longer. Following the discovery of DNA in 1953, genetics has become the ‘hottest’ branch of the life sciences. Its achievements display a level of sophistication that would have appeared miraculous to scientists of former times. For instance, the implantation of Arctic sea fish genes into tomatoes has made it possible to grow tomatoes in considerably colder climates. The invention of genetic fingerprinting has made it possible to introduce undreamed of precision to the rules of criminal justice. Prenatal diagnosis has made it possible to prevent the spread of certain nasty genetic diseases (such as Cystic Fibrosis or Huntington’s disease); the targeted treatment of other illnesses with a genetic component (such as certain forms of cancer) is just a question of time. On a more theoretical level, one consequence of the discovery of DNA has been the mapping and dating of the migrations of modern humans out of their native Africa some 70,000 years ago. The high point of genetic analysis was the Human Genome Project (H.G.P.), completed in outline in 2003. By decoding the total complement of

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<sup>26</sup> Jose Ortega y Gasset, *History as a System and Other Essays toward a Philosophy of History* (1941). y Gasset believed that man has two parts to his existence — a natural and an ‘extranatural’ part.

<sup>27</sup> Michel Foucault, *A History of Sexuality*. Volume 1: *An Introduction*. Trans. Robert Hurley. Harmondsworth 1987, 127.

<sup>28</sup> David Halperin, *One Hundred Years of Homosexuality*. New York – London: Routledge. 1990, 25 (his italics).

<sup>29</sup> For the concept of ‘biophobia’, see M. Daly and M. Wilson, *Homicide*. New York. 1988.

genetic material contained in a human cell (i.e. genome), the project aimed to characterize in meticulous detail the genetic instructions that shape a human being. With such a record, the image of genetics as a noxious bogus science will have to be reconsidered.

A gene-centred view of the world has enormous implications for all aspects of life on earth. But none matches its effect on human nature in importance. In fact, in the light of these developments, current conceptions of human nature need to be radically rethought. What the late biologist Ernst Mayr wrote on the subject seemed a heresy in the 1980s, but represents a wide-ranging consensus now: ‘Perhaps the most far-reaching impact that genetic thinking has had on modern man is to raise the possibility that almost all human characteristics may have a partial genetic basis’. To counter the objection, often raised by humanists, that bodies might, indeed, be the products of genetics and natural selection, but human minds and behaviour must be the product of ‘culture’, Mayr responded: ‘This claim is made not only for physical but also for mental and behavioral attributes’.<sup>30</sup> In other words, inherited tendencies permeate almost everything we do.

Paradoxically, genetics itself provides the strongest possible evidence for laying bare the fallacy of racist theory — that the outwardly visible differences between the races, and the alleged concomitant superiority of one race with respect to others, are genetically based. Studies in population genetics show conclusively that there is much more genetic variation *within* than *among* human races.<sup>31</sup> People, to be sure, are different, but significant differences (as opposed to superficial ones, such as skin colour) cut across racial boundaries; they are not aligned along them.

It is hard to overestimate the implications of this newly-emerging image of human nature for the study of history. We are faced with the prospect that the unique combination of genetic material that all human beings inherit from their ancestors is a code involved in determining not only their personal characteristics, but also their political views, socialization skills and cooperative capabilities, perceptions of the other, and yes — their norms and values. To be sure, studies that have come up with such claims are still in their infancy. If, however, they are vindicated by subsequent research — and there is little doubt they will be — then almost everything written hitherto on topics such as these would be rendered obsolete.

No less dramatic are the implications of these developments for a topic already alluded to — “culture”. Conceived by traditional wisdom as “something” animated by an internal dynamic — an un-propelled propeller, as it were — culture is typically defined as follows:

The cultivation or development of the mind, manners, etc.; improvement by education and training; refinement of mind, tastes, and manners; artistic and intellectual development; the artistic and intellectual side of civilization; a particular form, stage, or type of

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<sup>30</sup> Ernst Mayr, *The Growth of Biological Thought*. Cambridge, Massachusetts, London: The Belknap Press of Harvard University Press, 1982, 827.

<sup>31</sup> Daniel L. Hartl and Andrew G. Clark, *Principles of Population Genetics*. 2<sup>nd</sup> ed., Sunderland, Massachusetts: Sinauer Associates. 1989, at 302. Cf. Steve Jones, *The Language of the Genes*. London: Flamingo, 1994. Ch. 13.



intellectual development or civilization in a society; a society or group characterized by its distinctive customs, achievements, products, outlook, etc.; the distinctive customs, achievements, products, outlooks, etc. of a society or group; the way of life of a society or group.<sup>32</sup>

In light of the developments outlined above, it is possible to redefine culture in biological terms, tracing its activating force back to genes, and all this without leaving out any of the features appearing in traditional definitions. To draw this definition we must import into our humanistic discourse two key concepts from the life sciences. "Phenotype", in biological jargon, refers to the outwardly observable characters of an organism, 'blue eyes', 'dark skin', 'five feet eight inches', 'blood type O' being examples. The phenotype is by and large determined by the "genotype" — the coded, inheritable and to the naked eye invisible information carried in the structure of that organism's DNA strands. A good analogy is a CD. The apparently meaningless sequence of magnetic signs imprinted on the disc (the "genotype") gives rise to a special kind of voice or music (the "phenotype"). The genetic information encoded in our genes is responsible for the production of outwardly observable characteristics such as those noted above, and even more so, for the construction, maintenance and reproduction of entire organisms.

However, the effect of genes reaches even beyond that. It is this third level of influence, which the great British biologist Richard Dawkins has dubbed the 'extended phenotype', which should be of the greatest interest for humanists.<sup>33</sup> *Genes manipulate the world around through the agency of their phenotypes, with a view to maximizing their chances of reproduction and survival.* The examples Dawkins gives from animal life include pigeons carrying twigs to their nest, cuttlefishes blowing sand from the sea bottom to expose prey, beavers felling trees and manipulating the entire landscape for miles around their lodge. In humans, to be sure, this manipulation is far more complex, by virtue of a considerably wider repertoire of responses to stimuli, and its consequences are far more dramatic, because of the potential, generated by an enlarged brain, to accumulate knowledge and to transmit it across generations. But essentially we are talking about the same phenomenon.

Examples of the manipulation of the world around by humans have been observed by both social scientists and humanists. They have called them various names such as 'the projection of the self', 'social identity', 'social action', or, on a wider scale, as 'ideas' or 'economic forces' that allegedly drive human affairs, without, however, tracing their source to genes. To switch to the life scientists' perspective, they have only to admit that these features are actually expressions of gene-animated, extended phenotypic manipulations. Therefore, human culture can usefully be described as the cumulative, progressively enlarged, end-results of such extended phenotypic manipulations. People build houses, make scientific discoveries, play music, produce literature, argue,

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<sup>32</sup> The *Shorter Oxford English Dictionary*.

<sup>33</sup> Genes have 'extended phenotypic effects, consisting of all its effects on the world at large, not just its effects on the individual body in which it happens to be sitting'. Richard Dawkins, *The Extended Phenotype*. Oxford: Oxford University Press, 1982, 4.

cooperate and battle with one another because they are driven to do so by the unique combination of genetic information encoded in their genes. All that people have done, said, thought and felt since the appearance of the first signs of culture in the Neolithic age can be traced to the effects of the interaction of their extended phenotypes with environmental forces and the extended phenotypes of other living beings — whether the microorganisms that invade their bodies, the fish and domesticated mammals they consume, or other humans. By analogy with a well-known epigram, one might say that there is nothing in culture that was not earlier in the genes.

The conclusion of this essay is therefore that the gulf between the humanistic disciplines and the life sciences is not, after all, as unbridgeable as it initially seems. The humanities and the sciences represent two vantage points for observing and describing the human condition. The boundary between the two should resemble a shallow, meandering river which the practitioners of each discipline can cross at ease — rather than an iron curtain.

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