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From Human Nature to Moral Philosophy[1]

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Human Nature

In recent times the conception of the human being, particularly in Western moral philosophy, has been of an intellectual center, installed in a biological vessel like a "ghost in the machine" — according to Gilbert Ryle's haunting image. To be sure the machine in this image is fashioned of biological matter and governed by biological laws, but it is also subject to the "higher" law of the will, no less than to fundamental laws of physics. It is also the manifest image of the self in Western society outside the academy — the image a person procures by dint of growing up in a distinctive human climate — the image that each of us, in an increasingly wider circle centered on Europe, must master if we are to maneuver successfully in the contemporary legal and social milieu.[2] It makes some sense to invoke such an image for the purposes of certain traditional moral theories. For the image, or something very like it, easily renders talk of *individual* responsibility sensible. And the

1 I want to thank Chrisoula Andreou, Steve Downes, Leslie Francis, Peter Hare, Cynthia Stark, and (as always) Barry Smith for willingness to read early versions of this essay and help me shape the argument. Thanks also to those in attendance at a reading of a version of this paper at the Feminist Moral Philosophy Conference held at the University of Western Ontario. But thanks most of all to Samantha Brennan, who asked me to write this paper and illuminated the way. Without her urging, I should never have learned so much as I did.

2 Wilfrid Sellars originated use of the terms "manifest image" and "scientific image" to contrast common sense conceptions with those of science.

image is palatable, made so by romanticizations of Rationality for which we have particularly the estates of Aristotle and Kant to thank. Even so, the image has drawn detractors in our time, and no mistake.

This romanticized picture of the self rests upon and is therefore a reflection of a conception of human nature as rooted in deliberation. Appeal to human nature was in the first instance a philosophical move: it was a counter to the religious sector's appeal to God or gods for the authority of moral imperatives. Western moral philosophy from the very beginning has appealed instead to a deliberative human nature, and not to divine law, as grounding the dictates of morality. In the contemporary space of philosophical options on numerous moral subjects, prime real estate clusters around a doctrine asserting the existence of a surpassingly significant (and usually also unique) moral feature — named by the name of Rationality, with a capital "R" — that is purportedly, even palpably, shared by all members of the human family. Well, not so palpably. Until only quite recently, exceptions have been insisted upon: women and slaves and non-Caucasians and children and dependents and outsiders and defectives of all kinds — not to mention ailing relatives — were excepted from full enjoyment of this deliberative nature. And so in recent times certain feminists have fulminated against all doctrines of human nature on the grounds that, for a variety of sociological reasons, those who are ever in a position to articulate the conception and press it into service, as it happens, are the privileged; they get to ennoble as features of human nature those characteristics they value most highly, or those characteristics whose elevation best serves privilege, or simply those characteristics closest to home.[3] Better to go without this labile conception that lends itself to easy abuse, thereby becoming accessory to enslavement of so many. Better to go without human nature and to pursue instead a more liberating conception of the commonalities and binding relations amongst members of the human species.

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3 See Louise Antony, "Human Nature and its Role in Feminist Theory," *Philosophy in a Feminist Voice*, ed. J. Kourany (Princeton: Princeton University Press, 1998), 63–91, for discussion.

But the anti-essentialism, practiced for practical ends, is time and again countered by a chorus of observations to the effect that knowing the boundaries of human variation matters for practical ends. After all, "ought" implies "can," so how can we judge an "ought" when we do not have "cans" firmly in mind? Some feminists too mourn the loss of the concept of human nature as a tool for transforming our attitudes and possibly also our societies.[4] Since, as it would seem, there can be no adequate moral philosophy that does not pass the test of human nature, moral theorists must perforce gesture at some semblance of an account of human nature, if only for showing that "ought implies can" has been respected. It is a rite of passage. But what is it to study human nature in an objective fashion? Is it possible to study human nature as a trait cluster, or as something akin to an organ, much the same way that one studies human morphology or human endocrinology? Indeed, is there anything to human nature beyond human morphology and endocrinology awash in a sea of physics? Is it the study of human cognition, or simply the study of human behaviors and behavioral dispositions directly? Can humans be studied, by human beings, as non-human animals are so studied? And what role does culture play in human nature? And in the *study* of human nature?

The last 150 years have seen images of human nature coming fast and furiously, as the sciences of mind, behavior, ecology and society have come into their own. It is always a political moment too when a new picture of human nature is unveiled. For as nearly everyone now knows, doctrines of human nature can and have been pressed into service of reprehensible social doctrines and shameful political objectives. Framers of social policy often look to the sciences for support of them. And social conscience is now so sufficiently attuned to this reality that, when doctrines of human nature are propounded and scientific findings tendered in support, the public-minded come out in force to examine the credentials. For if the studies consulted for policy's sake are mistaken, the mistakes can cripple the aspirations and reduce the lives of millions whose prospects depend upon the mercies and ameliorations that can be wrought by social policy.

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4 Ibid.

Unveiling of the research program originally known as sociobiology, whose best-known elder statesman is Edward O. Wilson, occasioned a hailstorm of criticism precisely for such reasons. In the latter 1970s, Wilson, a venerable zoologist specializing in the social insects, launched a program to study broad classes of human behaviors as evolved phenomena, and to discern precursors and elements of human behavior in the behaviors of nonhuman species. The discipline he would found was to study behaviors, human and nonhuman, as adaptations to ecological conditions encountered in evolutionary history. His political message was that there are features of human society that cannot be altered except at great — and literally unbearable — costs, because there are boundaries to what we can expect from human beings. In his terms, studying human nature is studying features of the human condition that are practically immutable but that we might be able to rely upon for continued survival of the human species.

Numerous critics brought forward intellectual criticisms of the would-be Wilsonian science, as science, on behalf of those whose improving prospects under increasingly favorable social arrangements stood to be blunted or diminished by the dangerous message: women, mothers, the underclasses, aboriginals, non-Europeans of every sort. The critics demonstrated that studying behavior as an evolved phenomenon is more difficult than Wilson and comrades were prepared to make it seem, not least because, if one is to have anything at all to say, one is bound to speculate — to make undersubstantiated, potentially tainted assumptions — about certain unknown features of the Darwinian natural histories of those behaviors. These are the putative histories of selection events in which the behaviors in question are carried into future generations because they confer a reproductive advantage on the individuals that originally perform them. We shall not dwell on offending assumptions here.[5] Critics of sociobiology have done and continue to do their work.

But the descendants of the early sociobiological program are still with us. They shall not be swept altogether away by criticism of their science

5 Philip Kitcher, *Vaulting Ambition* (Cambridge, MA: MIT Press, 1985) is a brilliant diagnosis of the work of assumptions in pop sociobiology in its first flush of success.

on scientific grounds. Today's successors of sociobiology, going under such trade names as "evolutionary psychology," "behavioral ecology," and "evolutionary anthropology," are still making their presence known. Some of them are still propounding Wilson's original message. Others are feminists or champions of underrepresented groups, and their political message is different from Wilson's, as will become clear presently. But all of them are still in the human nature business, and still formulating hard medicine for all.

Is it time for peaceful cohabitation? Some feminists are so signaling. Others remain thoroughly unpersuaded by the human nature project. There is a middle way, which here I shall begin to chart. This consists in taking measured steps before a final reckoning. It consists in assessing, by predominantly philosophical methods, the impact of sociobiological argumentation upon questions traditionally approached by non-biological methods. This style of examination exposes, in a distinctively philosophical fashion, the morals of new-generation sociobiology to a dose of coherence analysis, thereby flushing out hidden premises. In this essay I propose to examine what human nature *cannot* consist in, in light of arguments sociobiologists are now propounding and others in the same neighborhood. And the morals that will survive this examination will be supported by powerful confirmations from clinical sciences that never claimed to be in the immutable human nature business but that instead continue to seek the amelioration of all undesirable conditions.

Here now is the plan of this essay. I will begin by showing that the logic of sociobiology does not allow for anything "universal" to human nature when it comes to behavior. The best sociobiology can do by way of natures is to put on display the "mammalian-female" nature, or the "male-primate" nature, and so on. And arguably not even these are yet sufficiently sharply demarcated characterizations of true natures. Sociobiologists should really be proclaiming the nonexistence of "universal" human nature. But I shall also be arguing that sociobiologists have another message to offer, though they themselves do not know it so well: when behavior is a target of evolutionary pressure in the prevailing biological models, there is no longer anything there deserving of the name *agency*. For the sociobiologists' message rests upon the (ungrounded) doctrine that human behavior is not the product of a unit of agency, but that it is instead the product of multiple, interacting,

but thoroughly unintegrated dispositions, mechanisms or organs for behavior, reacting to salient ecological conditions. This is a shoddy doctrine, and unworthy (as I shall be arguing) of the facts of life in the clinic.

Nonetheless I will put forward better arguments than the sociobiologists typically display — indeed arguments that also appeal explicitly to evolution — in favor of the thesis that there is no such thing as human nature when it comes to behavior. And I shall be arguing that this is still good news — even if it isn't good news for certain moral philosophies, particularly those falling into the Kantian family. The news of the nonexistence of universal human nature vis-à-vis behavior, as I will show, is compatible with there being true agency.

Before we begin, I want to contrast my conclusions with those of earlier critics of the sociobiological program. Some of these questioned sociobiology's status as science, by contesting for example its falsifiability, or by challenging its methodology. I shall make no such complaints here. Still other early critics were more generous on the question of sociobiology's status as evolutionary science, acknowledging it to be a full sibling to fields that study the evolution of other aspects of biological life. But they cautioned that the evidence on which certain of the sociobiologists' hypotheses then rested was feeble. As they pointed out, giving a respectable adaptationist history for some piece of behavior is like solving a system of a hundred simultaneous equations, with a hundred unknowns, whilst knowing values for only one or two of these.[6] Since assembling such meager clues as we now have in any suggestive way is enormously dangerous and menacing to persons whose prospects in life are already imperiled, these critics judged hopeless the enterprise of studying behavior as evolved. Better not to run the risk of alchemizing prejudice against those already disadvantaged by prejudice, into purported knowledge,

6 To claim that some trait is an adaptation is not to claim that it is adaptive — or advantageous — for organisms that manifest it today. It is instead to claim that the reason for its continued recurrence lies in an advantage it conferred on individuals who bore it in the past.

for the sheer ignorance that forces us to rely on unworthy assumptions in the first place.[7]

Because an adaptationist explanation for complex behavior is necessarily complex, pessimism is obviously not unfounded. But pessimism is all it is. There is no independent ground for assertions to the effect that there *can* be no route to knowledge of the unknowns we need, if only we are clever enough, and look in yet-unexamined crannies of the universe. Science in general, and evolutionary biology in particular, has seen numerous successes that might never have been achieved had pessimism led to surrender of the cause. As Philip Kitcher puts it:

> [T]he issue comes down to the credentials of particular explanations. We must ask, has this explanation of this behavior in this group of animals been supported by the evidence in the way that ambitious Darwinian histories lend themselves to support? ... [I]t would be counterproductive to impose a ban on speculation about the evolution of animal behavior. Danger looms only when we confuse ourselves into thinking that there is some undifferentiated mass of studies, all equally well supported, which goes by the general name "sociobiology."[8]

I agree absolutely with Kitcher's cautious optimism about the prospects of studying behavior as evolved. But the investigations we will undertake here will indicate further reservations about doctrines of agency taken for granted in the models that are routinely on display in biology. These reservations will interact quite directly with moral and political questions. And upon these important subjects will rest our ultimate gaze.

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7 Nowhere is this criticism better substantiated than in Kitcher, *Vaulting Ambition*. But see also the criticism of early sociobiological explanations offered by Sarah Blaffer Hrdy, *Mother Nature* (New York: Ballantine Books, 1999).

8 *Vaulting Ambition*, 135–36.

The New Generation of Sociobiologists

Twenty-five years ago, sociobiology was an enemy of the political left. But one gets the impression from reading textbooks in anthropology, cognitive science, and behavioral ecology that all is now, a generation later, being put right with the left.[9] Evolutionary psychologists, behavioral ecologists and evolutionary anthropologists, it would seem, are now themselves spearheading a movement to eradicate deplorable prejudice. And feminists are in the forefront of a high-paced Darwinian movement to study behavior within the context of the evolutionary history of life on the planet: Mary Jane West-Eberhard, Sarah Blaffer-Hrdy, Barbara Smuts, and many others. Now students of behavior are proceeding with eyes deliberately critical of all that threatens, in unscientific and unsubstantiated fashion, to divide humans — and other species too — into ranked castes. There are, to be sure, differences of emphasis, of methodology, and of reliance upon bodies of empirical findings in comparative phylogeny, primatology, developmental psychology, and human and animal cognition that go along with the choice of label amongst "evolutionary psychology," "behavioral ecology," and "evolutionary anthropology." And exchanges amongst those who adhere to different labels (or who have the labels adhered to them) have been positively acrimonious.[10]

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9 I am referring now to research by the likes of Sarah Blaffer Hrdy, *The Woman that Never Evolved* (Cambridge, MA: Harvard University Press,1981), *Mother Nature*; Jared Diamond, *Guns, Germs and Steel* (New York: W. W. Norton, 1999); M. Wilson and M. Dayly, "The Man Who Mistook his Wife for a Chattel," in J. Barkow, L. Cosmides, and J. Tooby, eds., *The Adapted Mind: Evolutionary Psychology and the Generation of Culture* (Oxford: Oxford University Press, 1995); David Buss, *The Evolution of Desire: Strategies of Human Mating* (New York: Basic Books, 1994). An invaluable source of guidance on this research is *Sex, Power, Conflict: Evolutionary and Feminist Perspectives*, D. Buss and N. Malamuth, eds. (Oxford: Oxford University Press, 1996). See also Peter Singer, *A Darwinian Left* (New Haven, CT: Yale University Press, 2000), for philosophical discussion of Darwin's uneasy relationship with the political left.

10 See S. Downes, "Some Recent Developments in Evolutionary Approaches to the Study of Human Cognition and Behavior," *Biology and Philosophy* **16** (2001): 575–95.

Debate amongst wearers of different badges is healthy, particularly when it brings out the weaknesses of feeble adaptationist hypotheses or research focuses, and illuminates the better, as better. But such debate cannot substitute for full-scale analysis of the enterprise whose general premises are shared by the opposing forces. Now the differences between the different camps will not matter for our purposes here. So I shall refer to the range of evolutionary studies of behavior as "sociobiology," because they offer broadly biological models of the processes that, as they have it, explain certain target behaviors and behavior classes. By the term I am referring to the family of disciplines that exposes human behavior to a dose of evolutionary analysis on the model of natural selection, that acknowledges natural selection as the prevailing force of evolution, and that acknowledges only one ("vertical") path for trait transmission: from parent to offspring. This family importantly excludes disciplines and research programs that seek to model also, in addition to natural transmission and selection of traits, cultural transmission and selection too — as having independent impact upon evolution. The cultural in these contrasting models functions as a distinctive evolutionary force that admits also "horizontal" as well as vertical and "azimuthal" transmission of traits. (Models that reserve a space for cultural transmission as independent normally also admit of vector combinations of biological and cultural forces.[11])

The news today amongst sociobiologists is that human nature — conceived as the legacy of tendencies to certain forms of behavior — is "universal." This is to say that the human species does not decompose, when it comes to behavior, into a hierarchically organized caste system. Put another way, the idea is that the differences amongst members of the human family are not matters of kind, but of degree or of emphasis. Human beings, as they are now declaring, are cut from the same cloth. Does this mean that the new sociobiology adheres to the idea that (for

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11 See, for example, R. Boyd and P. Richerson, *Culture and the Evolutionary Process.* (Chicago: University of Chicago Press, 1985) and by L. Cavalli-Sforza and M. Feldman, *Cultural Transmission and Evolution: A Quantitative Approach.* (Princeton, NJ: Princeton University Press, 1981). Brian Skyrms, *Evolution of the Social Contract* (Cambridge: Cambridge University Press, 1996) offers a modeling strategy (called "replicator dynamics") that can be utilized to model both types of forces.

example) male and female are furnished with the same legacy vis-à-vis behavior? Positively not, as I will contend. There is nothing "universal" about human nature as conceived by the contemporary sciences of behavior. I shall be arguing here that the message sometimes proclaimed with fanfare by certain friends of evolution studies, to the effect that human nature is universal, or alternatively that there are "human universals," is not substantiated — and indeed is contradicted — by those very evolution studies, no less than by findings in developmental and cognitive psychology. The better-substantiated news is that there is no such thing as human nature when it comes to behavior — that, in other words, the human species is highly diverse in its repertoire of behaviors, although from one community to the next we can see more or less the same range displayed. As I will show, if the sociobiologists are right, there are ways of sorting the individual members of the human community in ways that make the groups enormously different when it comes to behavior.

Now, philosophers of eras past did not want to claim that sorting the human family in different ways — for example, sorting men and women into different groups — results in a display of distinct kinds or species, any more than do our friends in the evolutionary sciences. Such a display, they thought, might give the false impression that (for example) men and women do not share something fundamental in the way of nature. Still, these philosophers of bygone eras — with the pre-eminent Aristotle and Kant in the lead — wanted to insist on a difference in the way of nature that makes a difference in moral status between (for example) men and women. Their solution was to affirm that women and men (for example) share a nature, but that women were — by nature — unable to realize it fully. Men (free and upper class) came to be regarded the true exemplars of humankind — the pure and unflawed case.[12] Defective were women and other lesser members of the species, in whom the true human nature is diluted through deficiency. The natural-exemplar/natural-defective strategy is — as is well known — a recipe for baroque philosophy of science

12 This theme is developed fully in Antony, "Human Nature and its Role in Feminist Theory."

and metaphysics. And because sociobiologists today largely deplore hierarchies — to their credit — the natural-exemplar / natural-defective strategy is not available to them.

I shall be arguing that the prevailing view of human beings, amongst evolution scientists, is no less afflicted with problematic tensions in metaphysics than was the view of the philosophers of bygone days. The official credo now is that certain features of human nature are common to all human beings, but (as I will show) the logic of evolution ritually invoked in these settings will not allow this to be literally true. The credo further insists that the truth about how people are by nature is no endorsement of the status quo, that it still remains to say how we *ought* to behave towards one another, when once we have said how it is, and to proceed with fostering the sort of society we want. The normative and the descriptive do not coalesce, so they say. But (as I will show) once the springs of human behavior, as conceived by the advocates of sociobiology, are revealed, it becomes clear there is no room for maneuver between is and ought. Why? Because agency disappears. And so we have to go back to the drawing board.

Human Sociality

Most primates are social, whilst sociality is the exception amongst mammals. Social living carries special ecological burdens: animals living in social groups face greater competition amongst themselves for resources and are palpably more vulnerable to infectious disease. And the relative importance of the benefits of social living — easy resource defense, reduced vulnerability to predation, shared rearing of offspring — is a matter of some controversy. Thus the balance between costs and benefits of social living is quite hard to judge. But to the extent that sociality is beneficial, it should come as no surprise that, in the social species, the key to crystallization, and to the subsequent structure of social living, is the cooperative alliance, in certain cases maintained through aggression, amongst female kin.[13]

13 This is true of the social insects to a very high degree. But it is equally true of primates. See E. O. Wilson, *Sociobiology* (Cambridge, MA: Harvard University

The supreme sociality of the human species is especially remarkable: its costs (in terms of competition and susceptibility to disease, but also in terms of its massive claim on cognitive and developmental resources, and so also the consequences for parental investment) are enormously high, and the benefits — diverse, ambiguous, and diffuse as they might be — are shared very unevenly amongst kin and non-kin alike. One factor that makes human sociality slightly more intelligible is the fact that human offspring are orders of magnitude more costly than the offspring of even our closest cousins among the primates, with one result being that they take at least five years longer than any other primate to fledge. The "childcare factor" (in Sarah Hrdy's phrase) is a prevailing consideration. And this leads today's scientists to examine parenting — parental investment more generally — as a major factor in human natural history.

The first event of parenting is mate choice. As Darwin — unlike so many of his contemporaries — recognized, mate choice is a selection force on male and female alike. Hence both males and females compete against others of their sex for mates with desirable characteristics. Once mating is achieved (whether or not it was sought in the first instance), each parent has to decide how much to invest in the resulting offspring, whether or not they are confident in its paternity or maternity. At each decision point in this sequence — or better to speak of "behavioral nodes" — the biological interests of each organism are almost invariably at odds with the interests of the others: the interests of mates are at odds, the interests of sibs are at odds, the interests of parent and offspring are at odds. Conflict is the first principle of ecology and thus of a science of behavior that rests on the credo of every-organism-for-its-reproductive-legacy.

Press, 1975), cf. Robert Trivers, *Social Evolution* (Menlo Park, CA: Benjamin-Cummings, 1985), and Sarah Blaffer Hrdy, *Mother Nature*. Vis-à-vis primates, see Robert Boyd and Joan B. Silk, *How Humans Evolved* (New York: W. W. Norton, 1997), 205–12. "Almost all zoologists agree," Sarah Blaffer Hrdy writes, "that if mammals are going to live in social groups, by and large it is the daughters who remain near their mothers, among their matrilineal kin" (*Mother Nature*, 141). Hrdy supports the contention of Barry Keverne and collaborators, founded upon genetic neurological experiments with mouse brains, to the effect that prolonged association among female relatives was the adaptive environment for social brains and that larger brains, built for social interaction, are passed through the matriline.

In what does conflict consist? It is an undisputed first principle, an axiom of ecology, that organisms drawing or seeking to draw on the same resource pool are in greatest competition with each other and as such are the agents of evolutionary pressure on one another. This becomes enshrined in some anthropology and ecology textbooks as the "logic of evolution." (We need to keep in mind that according to this logic, all adaptations are individual-level phenomena. And that "culture" in sociobiological models refers to features of community practice that are explainable only in terms of how they serve *individuals*.) Consider the following illustration: females are a limiting resource for reproduction in all mammalian species; so males compete with each other — in numerous ways not dreamed of in days when biology was the preserve of gentlemen — to reproduce with fertile females. To the point of going to great lengths and risks to dispose of offspring not their own, if this should perchance advance their reproductive interests ahead of their competitors by removing obstacles to their appropriation of a female's resources.[14] Similarly, parental care or investment is a limiting resource for immatures and embryos in perhaps all species, so there will be competition amongst sibs (and possibly interlopers as well) for parental investment. And so it is a corollary of these first principles of ecology that competition for any given resource will, in the first instance, be amongst those who share the same sex, same group, same species, same parents. And according to the sociobiological approach, studying behavior as the solution to an adaptive problem is a matter of attending to how this competition is solved: how have *individuals* evolved with capacities for handling these competition problems most efficiently, and in such ways as to leave the solutions (procured accidentally through mutation) as a legacy to their progeny?[15]

And so sociobiology is about the survivability, and the means whereof, of *individual* reproductive strategies themselves: food-gathering strategies, mating strategies, parenting strategies. Any behavioral trait that has a bearing on reproduction is *ipso facto* a reproductive strategy.

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14 The evidence for this is discussed at great length in Hrdy, *Mother Nature*, and in Martin Daly and Margo Wilson, *Homicide* (New York: de Gruyter, 1988).

15 Much more on this in Kitcher, *Vaulting Ambition*, ch. 2 and 3.

Now, since different individuals living in the same group — for example, males and females, and (later on as human settlements grew larger) persons of different social classes, and different racial or ethic origins — have to solve different problems, and since solutions to these problems are inevitably different, the "logic of evolution" will lead to the conclusion that these differences result in different features or characteristics — many behavioral — manifested in members of these different groups. For example, in most species, males and females have different reproductive problems to solve. In most species, female physiological investment in each live offspring is many-fold that of the male. So in the predominance of ecological settings, a female who seeks to maximize the number of descendants into the third and fourth generation, will be better advised to produce fewer, but higher-quality offspring, and to enlist as many kin and allies as will allow themselves to be enlisted — the father too, if he can be got — in the care of these offspring. By contrast, the male, who invests so little physiologically in each offspring, and who has so much of the raw materials to distribute widely, is better advised, in the same range of ecological circumstances, to engender as many and as diverse an array of offspring as possible — therefore, to mate with as many females as possible — and to leave as much of the care of the young to others where this is feasible. (Of course, there might be ecological conditions under which these strategies will not be the most advisable; for example, where monogamy might rank highly for both sexes. But these ecological conditions are exceptional, as we are told, not the rule.)

According to the ecological proposal in which transmission of traits is a "vertical" affair, these "solutions" to reproductive problems have to be passed on to progeny as a legacy. These solutions thus have to become somehow "internalized" — literally "embodied" — by each successor generation, according to prevailing doctrine. This results, for example, in the embodiment of different mating strategies, different parenting strategies, different food-gathering strategies, different predator-evasion strategies, different information-gathering and information-processing strategies, and different competitor-relations strategies. Very different indeed. Even the strategy of avoiding mating with close kin, touted as a fundamental piece of human (really, mammalian) biology, must have been chosen (where in fact it was) for different strategic reasons by the male (who stands to lose little through incest) and the female

(who stands to lose much more) and is less deeply imprinted on the psyche of the male than on that of the female (how often does a sister rape a brother, or a mother a son, as contrasted with the reverse?): observed similarities, where they exist, are at best analogous, rarely or never homologous.

And so the logic of evolution, as we have followed it to this point where its advocates leave it with us, will support the conclusion that human nature vis-à-vis behavior cannot be so universal after all. The sociobiologist's conclusion *must* be that different folks have to solve different problems, and they might well have — indeed almost certainly — evolved to solve them differently. And even if the same behaviors are manifested by different groups, it will be for different evolutionary reasons because the ecological conditions exerting evolutionary pressure have been different. So do different folk find different features of their physical and social environment more salient? Do they process such information as they bother to extract differently? Are they neurologically different? Are they behaviorally different? The answer, according to sociobiological reasoning, is: most probably yes, on all counts. Now, this answer is somewhat different from the answer proffered in darker times: by these new lights, people differ according to sex, according to origin, according to ecology, but the explanation is that these differences result from generic (universal!) evolutionary biological forces acting on everybody. So it is not that men are more evolved than women — everybody is equally evolved. But of course different folks are evolved to handle different ecological circumstances. So there is no guarantee that they share anything more in common than enough physiology (plus enough proteins and DNA) for the male and the female to reproduce successfully, each with enough of the others. And this is really the news to be proclaimed — if there is news to proclaim — not that human nature is universal, but that there is no such thing as human nature. Thus that reproduction is less a matter of passing on species-specific traits as it is a matter of rearranging characters that are currently in play because they served someone well under conditions prevailing at some critical point in the past.

One cannot help but be struck by certain similarities here to the old picture of innate gender, caste, and racial differences. And also by the welcome departures: there are theoretical and empirical supports (though one should be aware that their strengths vary widely) for the

posited differences, and an absence of judgment as to which among the different manifestations of humanity is "higher." Moreover, the new picture is better attuned to the fact that not all that is biologically relevant is got at birth but is sometimes got through active social interactions or through simple development in interaction with the environment (both physical and social). For example, the newborn might acquire immunities to disease (or social station) from mother's milk (or mother's social status). And this acquisition is either cultivated or impeded by cultural practices surrounding lactation (or social structure). This picture is thus much more attuned to the idea that development and environment have, in rather complex ways, a great deal to do with the characteristics that the mature organism will manifest.[16] Much more is biologically relevant now — relevant to the evolutionary history of an organism. At least now we see females and others occupying traditionally less attractive social statuses or social loci, as evolved in their own right, finely adapted to the niches they find themselves — for better or worse — having to occupy.[17]

Is this doctrine a much better place to be vis-à-vis human nature than we have ever been before? Not when it is conjoined with what I shall be calling the *dogma* of the sociobiological study of behavior: the doctrine that behavior is the unintegrated resultant of an accidental confluence of mechanisms that themselves compete with one another for control over

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16 Mary Jane West-Eberhard has had a lot to do with increasing the awareness of phenotypic plasticity and the evolution of development, even in the insect castes. "Wasp societies as microcosms for the study of development and evolution," in *Natural History and Evolution of Paper Wasps*, S. Turillazzi and M. J. West-Eberhard, eds. (Oxford: Oxford University Press, 1996), "Evolution in the light of developmental and cell biology, and vice versa," *Proceedings National Academy of Sciences, U.S.A.* **95** (1998): 8417–8419. For a look at the burgeoning literature on phenotypic plasticity, see Elizabeth Pennisi, "Research News: A Look at Maternal Guidance," *Science* **273** (1996): 1334–36; and Mary Carol Rossiter, "Incidence and consequences of inherited environmental effects," *Annual Review of Ecology and Systematics* **27** (1996): 451–76.

17 This comes out most clearly in David Buss, "Evolutionary Insights into Feminism and the Battle of the Sexes," in Buss and Malamuth, eds., *Sex, Power, Conflict*, and B. Smuts, "Male Aggression Against Women: An Evolutionary Perspective," both in Buss and Malamuth, eds., *Sex, Power, Conflict*.

an organism's behavior. Moral philosophy can do absolutely nothing with this dogma, and might just as well admit defeat.

Behavior as Adaptation

The moral of the sociobiological reasoning we have rehearsed is that there is not much to be said for a doctrine of *universal* human nature, when it comes to behavior, because (as we've seen) the sociobiological story has different groups within the same species evolving under different ecological conditions. This moral, as we've witnessed, rests on the prevailing doctrine that transmission of traits is always a family affair: the parent undertakes to carry the information about successful behavioral strategies, embodied in genetic code, into its own future generations. The prevailing doctrine is in this sense nepotistic: parent favors offspring by transmitting to only its own offspring behavioral traits that prove reproductively advantageous. Genetics and ecology transform once advantageous behavioral strategies into a physiology and neurology tailored to the niche that organism happens to occupy.

To be sure, there is a certain — to be sure obscured — doctrine of nature in the sociobiological story. In spite of all the plasticity that is touted as an advance upon the old theory of genetic coding of behavior, the picture is still the same one: organism responds (to be sure flexibly) to the stimulus of environment. Environmental variables control behavior. Yes, behavior is flexible, but all the flexibility in the world amounts only to responsivity to stimulus conceived as salient ecological conditions. It is the old behaviorism we sought to escape some decades ago now, returned in a new and more virulent form. And so it is clear also that we should not think of this as a very substantial doctrine of human nature: it applies to all organisms. According to the behaviorist mode of explanation, all organisms respond to their environment under the stimulus-response paradigm. And so the picture of the human organism is no different from the picture of any other living thing on the planet, from plant life on up. It is of an unintegrated figure on the evolutionary stage, responding (as flexibly as genetic code might demand) to "ecology" in much the same way that its behavioristic counterpart responded to "stimulus" some decades before, and no more deserving of the name "player" (much less "agent")

than its behavioristic counterpart.[18] This issue is evocative of the old problem of determinism. Indeed, Wilson framed it in precisely those terms some twenty-five years ago when he wrote:

> It is tempting to think that deep within the brain lives a soul, a free agent that takes account of the body's experience but travels around the cranium on its own accord, reflecting, planning, and pulling the levers of the neuromotor machinery. The great paradox of determinism and free will, which has held the attention of the wisest of philosophers and psychologists for generations, can be phrased in more biological terms as follows: if our genes are inherited and our environment is a train of physical events set in motion before we were born, how can there be a truly independent agent within the brain?[19]

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18 Wilson, by contrast, has a less behavioristic picture of the agent, which he gets from thinking about studies in cognitive and social psychology. He introduces the notion of schema: a schema is a configuration within the brain, innate or learned, against which neural inputs are compared as they come in, with either a "matching" or "not matching" result. The schemas, he writes, contribute to making up a person's mental "set," screening out or preferring certain features or details in favor of others, filling in missing sensory detail, heightening some decisions or alternatives to the disadvantage of others. And this way lies gestalt psychology.

Most significantly of all, schema within the brain could serve as the physical basis of will. An organism can be guided in its actions by a feedback loop: a sequence of messages from the sense organs to the brain schemata back to the sense organs and on around again until the schemata "satisfy" themselves that the correct action has been completed. The mind could be a republic of such schemata, programmed to compete among themselves for control of the decision centers, individually waxing or waning in power in response to the relative urgency of the physiological needs of the body being signaled to the conscious mind through the brain stem and midbrain. Will might be the outcome of the competition, requiring the action of neither a "little man" nor any other external agent. There is no proof that the mind works in just this way. For the moment, suffice it to note that the basic mechanisms do exist; feedback loops, for example, control most of our automatic behavior. It is entirely possible that the will — the soul, if you wish — emerged through the evolution of physiological mechanisms. But, clearly, such mechanisms are far more complex than anything else on earth" (*On Human Nature* [Cambridge, MA: Harvard University Press, 1978], 76–77).

19 Ibid., 71.

And of course a reply of compatibilism might be applied here ("freedom and determinism are compatible, possibly even that the former entails the latter"), as well as it was applied to the old problem of determinism. But there is a new twist here. The classical problem of determinism posits that the future is fixed by the past. But the problem here is not that we fail to find a space for escape from the past. Because sociobiology does not claim that all the determinants of behavior lie in events antecedent to birth, or in the genes as such, sociobiologists are not committed to the classical problem of determinism. The sociobiologists are eager to espouse environmental shaping of adult characteristics and behaviors in development; and so it is a mistake to assimilate this problem to the problem of freedom and determinism. Not even the original founders of sociobiology — most especially not Wilson — accept the idea that the genes are the sole determinants of behavior.

What is ruled out here is a space for human agency, conceived as a unitary thing. It is not the old problem of the tyranny of the past; it is instead a problem wrought by a dearth of agency.[20] Now the philosophical question needs to be raised and addressed: is an evolutionary strategy for explaining behavior necessarily committed to an unintegrated colloquium of behavioral mechanisms, and against an integrated agent? Possibly not. The one — the only — evolutionary model I can envisage as an alternative to the disintegrative model being advanced in sociobiological literature is one that locates the sources of behavior in the culture in which the organism develops, rather than in the individual organism: the organisms inherits strategies for behavior, not in the form of genetic information that unfolds within the brain, but rather in the form of cultural norms, expectations, or other teachings. The forms of transmission for such strategies, or traits if you prefer, will be much more diffuse. Indeed this model must be accompanied by a theory of evolution by cultural evolution, alongside the theory of ordinary evolution by natural selection.[21] It is compatible with

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20 Like Wilson, Kitcher (*Vaulting Ambition*, ch. 11) also uses the framework of freedom and determinism to treat the subject, but the framework is too restrictive, as I think Kitcher's discussion illustrates.

21 Seminal work on this topic was conducted by Boyd and Richerson, *Culture and the Evolutionary Process*, and also by Cavalli-Sforza and Feldman, *Cultural Transmission and Evolution*.

this counter-biological model (but not unavoidable) that individuals might exhibit something deserving the name of agency. But such a model does nothing to support the idea of a human nature in the desired sense, as something that stands as a contrast to the idea that behavior is thoroughly plastic (as defined outside the framework of behaviorism).

One feature of the sociobiologists' argument is impeccable: members of the same species occupy many different kinds of ecological niches. It follows that the niche is the thing, rather than species or population membership, that has direct impact on how an organism will develop, both before and after it emerges from the womb. These are true facts of evolution. Do they take us where sociobiologists seek to go? Do they paint a coherent picture of immutable human nature, one that gives useful answers to the question of where the boundaries of possibility for human behavior lie? No.

Moral Philosophy Meets Sociobiology

A sociobiological picture of the human being is of a thoroughly instinct-driven organism. But instincts as such are not the source of the problem we have exposed. Instincts, in the right light, can be assimilated to the category of innate desires. These play a part in an ancient puzzle about the structure of agency that even Plato sought to address. And there's nothing particularly problematic for moral philosophy about desires as such, even if they are not chosen but instead given to the organism by heredity, development, or environment. The deeper problem of sociobiology is that the organisms they have in their sights are instinct-driven through and through: there is no higher-level filter through which instincts must pass before launching behavior. Thus if the sociobiological model of behavior-as-evolved is accepted, we shall all come out looking dis-integrated, and so ineligible for full-fledged practical agency. Instinctual materials under the control of a genuine agent, and assembled into a coherent repertoire in a cultural context in which behaviors can be learned from conspecifics, is the stuff of a model of cultural evolution of behavior, not of a sociobiological one. And so sociobiology should cause philosophers — who in their history have simply taken for granted the romanticism that normally

developed adult human individuals are possessed of a certain all-or-nothing unity, and have given it names like Reason (with a capital "R") or more recently Practical Identity — a good deal of upset.[22]

In fact, I think that a certain range of scientific findings should indeed make us skeptical about anything that deserves calling a "unity" in the human organism, as something present at birth, or that springs fully-formed at puberty, like Athena springing full-grown from the head of Zeus. (I think that the sociobiologists' case for this is thoroughly unconvincing, but this is beside the point at the moment.) We should indeed view agency as something that is developed, incrementally, in a social setting.[23] Becoming a moral agent is something that takes place — but again not with organic inevitability — in the course of organic development, and something too that takes a great deal of work, on the part of the budding agent as well as on the parts of those who have an interest in fostering that agency. Indeed, therefore, it is best achieved not by single organisms on their own, but in social groups of many. These facts militate against the manifest image: there is no such thing as universal human agency present in its entirety in the normal, individual organism. And of course this moral goes against both Aristotelian and Kantian doctrines of human nature. Moreover, it's not possible to think of ourselves, as contract theorists wish to do for purposes of political philosophy, as *ab initio* entering into contracts with one another behind veils of ignorance (or some such) where we retain only thin raiments of agency or Rationality that belong to us before social arrangements have been ironed out, or simply as possessing "reflective natures" that support moral choosing outside the context of culture and society.

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22 Study of human evolution has also made us humans look less honorable even than we took ourselves to be, and certainly less honorable than some other members of the animal kingdom. One of our bigger crimes (among many) is that we humans have practiced routine infanticide, as deliberate and well-timed as you please, not only of our own offspring, but of offspring belonging to our rivals, so as to advance the cause of our own lineage — though we most assuredly did not put it to ourselves in these terms. Chimpanzees do better. The research on this subject was spearheaded by Sarah Blaffer Hrdy; see her *Mother Nature*.

23 Some folk might prefer the term "socially constructed," but this term has overtones of an unreality about it, that philosophers should view as distasteful, or at least controversial.

These realities go against a certain, very deep philosophical grain, running parallel to the doctrine that philosophy is very distinct from science, and must maintain a separate existence. It is a doctrine that descends to us (once again) from Kant, but has expanded far beyond the circle of those who call themselves by Kant's name. Its corollary is a philosophical disposition to regard science as having nothing useful to say about the structure of agency — that this structure is brought out, like the grain of a human "wood" — through (philosophical) reflection alone. A distinctively Kantian expression of this idea is found in Christine Korsgaard's *Sources of Normativity*:

> When you deliberate, it is as if there were something over and above all of your desires, something which is *you*, and which *chooses* which desire to act on. This means that the principle or law by which you determine your actions is one that you regard as being expressive of *yourself*.... The conception of one's identity in question here is not a theoretical one, a view about what as a matter of inescapable scientific fact you are. It is better understood as a description under which you value yourself, a description under which you find your life to be worth living and your actions to be worth undertaking. So I will call this a conception of your practical identity.[24]

The idea expressed here is incompatible with the proposition that science could ever come to discover that there is no universal and luminous sort of unity out of which springs an action, or a lifetime of actions. Like the Kantian doctrine to the effect that the will is free, this doctrine of the Practical Self is one that no findings in the behavioral sciences can touch, as Korsgaard insists. Why? Because the practical identity, the practical self, that emerges here — like the freedom that it encounters — is a self that is open only to *self*-encounter, in the process of deliberation. It is not open to third persons. And like the freedom discovered in reflection, it "is not a theoretical property which can also be seen by scientists considering the agent's deliberations third-personally and from outside. It is from within the deliberative perspective that we see

24 *Sources of Normativity* (Cambridge: Cambridge University Press, 1996), 100–1.

our desires as providing suggestions which we may take or leave."[25]

The response to this view, of course, is that this practical self might make no practical difference to behavior. The scientist is interested in what makes a true difference to behavior. And if the scientist can't find this "practical self," or finds something else instead, we should be prepared to withdraw this "practical self," or at least be prepared to view it as having no practical impact on behavior. But if the latter, then, once again, true agency is forfeited.

Expressions of the idea of an interior organizing principle abound also amongst philosophers who take a positively anti-Kantian perspective. Peter Singer, for example, writes: "We do not find our ethical premises in our biological nature, or under cabbages either. We choose them.... I, and not my genes, am making the decision."[26] Singer insists that his marking of a distinction between the observer standpoint and the participant standpoint is no departure from a scientific viewpoint, because "our ability to choose is a plain fact."[27] But saying so doesn't make it so. How is it a bland and unremarkable fact that "I" choose? The fact that contemporary language, at least in Western societies, abounds in similar turns of phrase, does not make the fact "plain." I think that Singer's idea that choices are part of the natural world is rooted in his conviction that the capacity to reason is an organic thing with an evolutionary history, and that it — as a single unit for purposes of analysis — can swing the course of events in unexpected ways.

But as Korsgaard is right to insist, we do not observe the "I," understood as a unitary thing, from a third-personal standpoint, any more than we observe its choosings from that standpoint. We observe behavior, and we infer everything else. The sociobiologists have their frameworks for making inferences to how behaviors are sprung, and the philosophers have theirs. And, as I shall argue, the evidence points to a middle ground between the two frameworks.

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25 Ibid., 96.

26 *The Expanding Circle* (New York: Farar, Straus and Giroux, 1981), 77.

27 Ibid., 78.

The sociobiologists put forward an adaptationist hypothesis to the effect that the behavior as such, or a piece of computational machinery for mounting it, has been inherited and is capable of being set off by environmental factors. Wilson would have it that whatever this information amounts to, it is stored in the hypothalamus and limbic systems, which are some of the oldest parts of the mammalian brain, and widely held responsible for emotions and so-called "drives." The behavioristic flavor of this should not be lost on philosophers.[28] By contrast, philosophers nowadays routinely trade in the manifest image to explain behavior: agents have reasons for what they do. Behavior proceeds from reasons, and environmental factors help contribute to and shape these reasons. It is a counter-behavioristic stance. Sensitivity to reasons is what makes behavior rational.

To appease sociobiologists, philosophers interested in preserving some of the features of the manifest image might appeal to a portrait of the self that Plato drew long ago. In the *Phaedrus* Plato likens the self to the union of powers in a pair of horses and their charioteer. The horses can resist the control of the charioteer — who represents the intellect or Reason — or against one another. In the interests of accommodating, say, Wilson, philosophers might identify the dark motivational forces of the limbic system and hypothalamus with Plato's horses. There can still be room for Reason.

But none of these views, as I shall now argue, is sufficiently attuned to the facts of life in the clinic. In every one of the moves described in this section, Reason is either present in full strength (because it's present and it's all-or-nothing), or there is nothing worthy of the name. Clinical evidence points to an intermediate position.

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28 Whereas I am naming it 'behaviorism,' Kitcher names it 'determinism.' Determinism is normally reserved for a doctrine that refers to the past's fixation of the future. And I am observing this practice. But it amounts to the same thing: there is loss of privilege or power that the self enjoys.

Twilight of the Manifest Image

It is a good thing that sociobiology and its successors are challenging the unity-as-all-or-nothing thesis (or as I shall sometimes refer to it, the categorical unity thesis) — though, as I shall be arguing, the challenging model (the unintegrated and accidental confluence of mechanisms for behavior) is not itself convincing. Unchallenged dogma tends to obscure or make diffuse evidence that fails to harmonize comfortably with it. Categorical unity is inconsonant with some quite familiar phenomenology.

A failure or shortfall in unity explains the fact that humans have, for a long time, experienced internal division in themselves. They have always sought to "rise above" baser instincts, to resist giving in to less worthy desires, to give expression to their "better natures." What is without doubt becoming clear is that the "baser" or "lesser" amongst instincts or tendencies — those promptings we might seek to escape in moments of repentance — are not necessarily universal, nor that they are always come by at birth: they might be common only to a single sex, or to an immediate lineage, and they might be acquired after birth. But they might nonetheless be vestiges of an earlier evolutionary epoch (the hypothalamus making its contribution). Or, as I will be suggesting, the baser natures might be instilled by social rather than biological forces. The point remains, however, that they need rising above, all the same.

Further from home for most of us is the experience of neurological loss or disease. But over the last four score years, a new breed of scientist has been moving among us. L. S. Vygotsky, L. R. Luria, and Oliver Sacks have been documenting cases of neurological deficit, as much as possible from the "inside." This triumvirate comprises only the most famous and erudite champions of adaptability in humans.[29] They have been studying the experience of the blind, the deaf, the diseased and the brain-injured. Sacks has documented the means whereby people

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29 Vygotsky's *Fundamentals of Defectology*, A. R. Luria, *Mind of a Mnemonist*, *Man with a Shattered World*, and *The Making of Mind*; luminous works by Sacks include *An Anthropologist on Mars* (New York: Vintage Books, 1995) and *A Leg to Stand On* (New York: Summit Books, 1984).

adapt, both neurologically and psychologically, to developmental deficits such as autism, to behavioral control deficits such as Tourette's syndrome, to losses of limbs and losses of color vision, to profound losses of neocortical and memory function, and even to vision regained. Neurologists have tirelessly worked to bring out the fact that defects, disorders, and diseases have a paradoxical role: they bring out latent powers that might never take shape without them. They make space for new forms of life. But the new life does not happen immediately, nor does it happen effortlessly. And this reality, finally, brings out in a highly dramatic fashion the fact that the "normal" experience of self is not all of a piece. There are variations. Sacks writes that this "demands a new view of the brain, a sense of it not as programmed and static, but rather as dynamic and active.... That the brain is minutely differentiated is clear: there are hundreds of tiny areas crucial for every aspect of perception and behavior (from the perception of color and of motion to, perhaps, the intellectual orientation of the individual). The miracle is how they all cooperate, are integrated together, in the creation of a self."[30] The point is that this creation is not inevitable, that it takes time, and labor, and that all along the way there is someone who is doing it — the self-creator, whose form of life is the object of these scientists' scrutiny. Thus perhaps the most fundamental mistake made in the manifest image is adherence to all-or-nothing unity: it is just not so.

Another failure of the manifest image is the unwarranted assumption to the effect that what self-integration has been achieved, for the sake of agency, is achieved by the individual from a thoroughly first-person perspective. (This is the Kantian refrain once more: I choose the principle of my agency, or endorse the sort of person I want to be.) But this image is definitely mistaken. Recently, Baressi and Moore have diagnosed the developmental and social disorder known as autism, as a failure of integration of first- and second-personal perspectives on the self.[31] And one of the most effective treatments for the deficit in executive function known as Tourette's syndrome is to show the patient a video of him or herself behaving without Touretticisms. (These are produced by clipping together shorter segments of the patient between Tourettic

30 *An Anthropologist on Mars*, xvii.

31 J. Baressi and C. Moore, "Intentional Relations and Social Understanding," *Behavioral and Brain Sciences* **19** (1996): 107–54.

episodes.) The insertion of a third-personal perspective on how the patient *can* be is perhaps the most effective means of providing the patient with a handle on control of his or her behavior.

These investigations suggest that what integration there is of the self is done at least partly at a social level. Self-integration requires being able to interpret oneself, simultaneously, as a first person as well as a second and third person. And that this requires being able to view oneself *as* a third person. Interestingly, as we are now learning, this is a social achievement, and realized incrementally, in degrees: human beings — each and every one — require the assistance of others in seeing themselves as third persons; people need to be helped to third-personal perspectives on themselves, as third-personal perspectives cannot fabricate them from nothing since they do not exist without the existence and the perspective of others. And even more importantly, some people need more assistance in this matter than others.

A Parable

The unintegrated model of the self challenges the doctrine of categorical unity simply through its claim to rest on scientific investigation of the facts of evolution. My challenge of it thus far has been by way of clinical evidence. But I shall offer a second challenge to the categorical unity thesis that will rest on an argument that also appeals to evolution. To develop the argument it helps to look at an apparent paradox that in due time we shall transform into a parable.[32]

Suppose we maintain, with Ernst Mayr,[33] that adaptive behaviors are shaped by natural selection and that their expression in the individual

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32 This concern is raised in slightly different terms by R. B. Cairns, *Social Development: The Origins and Plasticity of Interchanges* (San Francisco: Freeman Press, 1979), and by Jean-Louis Gariepy, "The Question of Continuity and Change in Development," in R. B. Cairns, G. H. Elder Jr. and E. J. Costello (eds.), *Developmental Science* (New York: Cambridge University Press, 1996), 78–96.

33 *The Growth of Biological Thought* (Cambridge, MA: Harvard University Press, 1982).

organism is supported by genomic information accumulated in the evolutionary history of that individual. On that basis we shall regard individual development as directed entirely by materials (thought of as carrying accumulated information) dictating the formation of a neural substrate, and which in time comes to support expression of the adaptive behavior in question. But from this position, study of the development of behavior is somewhat superfluous, even if its chemical basis might be of some minor intellectual interest. For on this picture the environment in which development takes place — as contrasted with the environment to which it adapted possibly hundreds of generations before — does nothing whatever to shape or guide the ontogeny of an individual organism.

But if we instead insist on a shaping role for the environment of development, in development, and also on a shaping role for behavior itself on the mature organism, we might want to insist that ontogeny is not *directed*, as from above, by genomic characteristics, but that genomic information is only one of several determinants, all on equal footing when it comes to directing ontogeny.

One middle way, intended for those who want to have their cake and eat it too (and who prize the metaphysics of a ranking "office" in the direction and formation of the organism, possibly above empirical substance), is to insist that some genomic features code for plastic development (they direct development, using information acquired from the environment, but allow different features or behaviors to develop in different environments), but that other developmental matters are thoroughly "canalized" — not responsive to environmental factors in any way.[34] However, this middle way, like the original, suffers also from having no little resources for explaining how organisms maintain themselves or reorganize in the face of stressful novel situations encountered by the developed or mature organism, and in the face too of trauma that inflicts significant and irreversible physiological or neurological damage. But organisms are remarkably

34 A very dramatic illustration of this plasticity in the insect kingdom is the mate-guarding behavior of soapberry bugs studied by Scott Carroll, see Boyd and Silk, *How Humans Evolved*, 72ff.

adaptable, even post-development. This is the fact that neurology and developmental psychology has been at enormous pains to document; and it is as true of non-humans as it is of humans.[35] So why should organisms be adaptable? After all, it is very costly to invest resources that you might never have occasion to use. The answer must be that adaptability is a kind of insurance policy: in a world characterized by dangers and risks, it might well enhance representation of your genes in future generations.

Returning now to the clinical facts, one key to how humans can adapt neurologically is that there is a fair amount of redundancy in the neural substrate in the way of function: neurons and neuronal regions have a range of functions that they can perform. So when one region of neurons is destroyed, another region can be recruited to take over some of the original function, either in addition to its own original function or in replacement of it. How is adaptability best modeled? How best explained?

There is an enormous space for therapy or re-habilitation post-development, although that space is not infinite. Correspondingly, environment plays a large role in shaping the expression of behavior. There are two ways to go with taking account of these facts. The first is a move in the sociobiologists' direction of unintegrated features (some of them behavioral), with neural redundancy being one of them, and environmental feedback in the way of selection. The second way is to go all the way to complete neural and behavioral plasticity. If we should elect the second, radical route (uncontroversial once upon a time), there is no need to view an organism as bothering to store information about advantageous behavior genomically. Why not view it as responding directly to environment, having learned only very generalized strategies for coping? Isn't this much more economical? For isn't it enough that the organism must store in genomic "memory" enough specific information to assemble a species-specific physiology and mode of reproduction, never mind a species-specific set of behaviors?

Of course the answer to this (finally quite penetrating) question must be in terms of costs and benefits. There are deep advantages to canalized

35 See especially research of R. B. Cairns and Jean-Louis Gariepy, and their collaborators.

traits: no decisions have to be made, no waiting on information from the environment, so canalized behaviors can be developed, generated, and implemented more cheaply and with much greater rapidity. And this might be life-saving, as well as more economical. Striking the right balance between economy and susceptibility to error and unforeseeable happenstance is — as it is virtually everywhere — the goal. This, at any rate, must be the devout evolutionary theorist's answer.

So it turns out that the paradox is not so much a paradox as it is a means of bringing to the surface the fact that, where we might have thought there is a once-for-all solution to the puzzle, there is in reality an ongoing evolutionary exercise in resource management. It is a balancing act to determine how, where, and even whether to store useful information, and such balancing acts are (as usual) quite difficult to work out from first principles, because so many contingencies make so much difference. Correspondingly, one should not view the decision as one made once-for-all in nature. Exercises in resource management — as strategies on the evolutionary stage — are very much subject to evolutionary pressures: nature, it might well be argued, produces an assortment of individuals with varying degrees of canalization, by the usual descent with variation. And natural selection acts to select the one or ones that strike the most auspicious balance between economy and lability. This realization thus renders the question, "How canalized is human behavior?" naïve. Once we recognize that canalization has its uses but also its costs, our question (having itself evolved) becomes: How canalized is a single individual's behavior, and how adaptive was this particular degree of canalization to the niche in which this individual's ancestors happened to find themselves, for better or worse?

These considerations provide positive reason to be suspicious of there being any such thing as universal human nature — as an absolute and universal set of limits on human variability and adaptability. And this route to suspicion about universal human nature does not take us through the tortuous detours of sociobiology — the detours in which we find that each distinct niche will impose different demands and exert different evolutionary pressures. We arrive at the conclusion that universality is an evolutionary dead end simply by reflecting on the advantages of variation. And this route to the conclusion, please note well, does *not* involve taking for granted that behavior results from an

unintegrated colloquium of (evolved) behavioral strategies: it is perfect compatible with some form of agency.

At this point in time we are in no position to answer two key questions: (1) precisely how costly is plasticity in relation to canalization? And (2) how economical is it to the organism, and to the relevant groups whose fates impact its own, if information is stored in a cultural rather than genomic medium? (Answering these questions is a bit like answering the question: Why does this organism reproduce sexually rather than asexually?) Without answers to these questions, we cannot speculate meaningfully on the natural history of specific behaviors of social species with learning potential, much less human behaviors. And if we must answer that there is very little canalization, either at the universal level or at the organismic level — possibly because behavioral plasticity is in the long run both biologically and culturally cheaper — then there is not much point to studying behavior as an evolved phenomenon.

Antidote: Clinical Philosophy

The better argument for a negative judgment on universality is grounded in the possibility that selection (natural or social) might favor more than one balance of plastic-to-rigid sets of behavior-controlling traits in the same species. That is to say, that it might serve to diversify the rigidities in the lineage, rather than always faithfully to reproduce the same strain of rigidities from one generation to the next. Or that the dynamics of selection might lead to a polymorphous equilibrium with different rigid-to-plastic forms reproducing their rigid-to-plastic balance into the next generation. With this argument, even the niche prototype (e.g., male-mammal nature) might disappear, under the right ecological and cultural conditions.

The fundamental questions are now these:

1. To what extent is human behavior, or a single person's behavior, canalized?
2. If the answer is that there is significant canalization, then what does it indicate about that person's agency, or human agency in general? And what is the fall-out for moral and political philosophy?

3. Since, on the other hand, we know for sure that human behavior is enormously adaptable, what does *this* say about human agency? And what is the fall-out of *this* for moral and political philosophy?

Let's work backwards. Since we know for sure that human behavior is enormously adaptable (albeit not infinitely so), there must be a significant capacity for reorganization, for retraining — both neurologically and psychologically. Many times this adaptation takes some work or training on the part of the organism to achieve. On these occasions at least, the supervisor of reorganization — the will undergoing stressful reshaping — is entitled to being called a "self" or agent, if anything does. For it is very typically a capacity to choose a hard course, and certainly a choice to endure suffering, that prompts us to impute an agency. And if the reorganized entity has a right to being called a self or agent, so does the un-reorganized entity. (How could we think otherwise and name the name of consistency?)

What does thinking about organization of agency in this light amount to? It amounts to requiring that we re-evaluate the notion that agent integration is an all-or-nothing matter. It amounts to recognizing the multiple ways in which dissociations of the numerous cognitive functions and behaviors can occur. It amounts to affirming the thesis that integration comes in types or at least in degrees, and that all of them are expressed in human development, pre- *and* post-maturity, pre- *and* post-trauma. And finally, it amounts to acknowledging that there is no universal characteristic of being integrated. This, then, is the moral to draw here: there is no such thing as universal human nature when it comes to agency. And this conclusion takes hold of an existentialism of the best kind. To be an agent is not simply to choose, interior to one's consciousness, an image of oneself, that one as an agent might for all that be unable to live up to. To be a bona fide agent in the world is, instead, to create an empirical self, with quite concrete and often quite individual ways of being integrated.

Studies of autism especially serve to emphasize the difficulties of self-creation. Autistic individuals have profound social deficits — or, at any rate, deficits that arrest or retard development of a variety of social skills. They have profound difficulties understanding others and understanding the subtle and multiple nuances of social interactions.

Treatment of autism, when it is feasible, usually centers on helping the autistic recognize such deficiencies as they can be made to recognize and subsequently bringing the patient to a point of choosing, and working at, the sort of social skills they find attractive, once they have advanced to the state of recognizing their shortfalls. Studies of these social deficits reveal the intricate developmental course that persons *without* autism travel, through such engagement as imaginative play in childhood, and simply also through organic development. But once this developmental course is charted, it becomes clear that no two individuals travel the course exactly the same way. And neither do individuals achieve the same end, as a species-specific end. Mature members of the species are better or worse at the numerous social skills that are mixed and matched in development. Indeed, some folk are social prodigies, and hone their social skills into a certain kind of genius that makes them extraordinarily successful in business or politics. Others are only modestly successful in social situations and find themselves better suited to other occupations. Sociality is a cognitive capacity, closely linked to the more generalized tasks involved in self-integration. Like the capacity for conceptual analysis, artistic capacity, or symbolic facility, it comes in degrees or — perhaps better — in kinds. There is a good deal therefore to be said for the idea of multiple "intelligences."[36] The mix of intelligences, and the resources dedicated to each, might itself be looked upon as an evolutionary strategy — nature and culture's way of finding new variations for filling the social niches of human society.

This is a clinical philosophy because it concerns itself with the individual organism, throughout its career, and with its sense of wholeness throughout its life. It is a philosophy that insists on the self-integrative potential of the human organism, as well as on the integrative potential of the human community. And it is a philosophy of the human social self that does not insist, at the outset, on everyone always, *ab initio*, being in a completed state of (empirically unexplainable) integration, as an all-or-nothing matter. And instead it focuses upon the work that it takes to become more integrated, or integrated to in a fashion that

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36 This proposal is associated with the name of Howard Gardiner: *Frames of Mind: The Theory of Multiple Intelligences* (New York: Basic Books, 1993).

facilitates one's success in the social niche one finds oneself occupying, for better or worse. So it is concerned with therapy as much as with diagnosis. It is indeed existentialism of the best kind: for it seeks to give an analysis of being a unity, rather than to take the concept of unity as standing in no need of analysis.

Does this answer have any bearing on the premier evolutionary questions — (1) and (2) above — that bear on the issue of whether any given piece of behavior, in such complex biological organisms as ourselves, can be treated as an adaptation? This question must be engaged elsewhere.

Coda: Morality as a Public Philosophy

Traditionally, title to equal moral, social, or political standing, in philosophy, never rested on title to specific biological or psychological parity with others holding that same status. Instead, it has been thought to rest on something more inspecific, more generalized, and assuredly less specifically biological in character, something to do simply with being human, being an agent, being rational, or simply being sentient. Now I am suggesting that findings in the cognitive and clinical sciences, particularly the sciences of deficit, should incline us to the conclusion that there is no such thing as a universal human nature — at least not when it comes to behavior or even to a structure for controlling behavior. I am propounding also the closely related thesis that there is no universal degree of integration of the human persona.

Now these findings cause a problem for moral philosophy — if, instead of requiring moral standing to rest upon very nonspecific features of being human, or even on simple membership in a community that pools certain resources, we insist instead upon moral claims and moral standings resting upon shared capacities or features, as so many moral theories do (if only for the thought that the "ought" implies the "can" and possibly also for the idea that justice is between equals). Of course we can put the matter immediately to rest provided we are willing to hold different agents to different moral standards, and we are willing to allow these standards to vary by sex, by socio-economic class, by ethic origin, by accidents in development, by anything at all

that impacts agency, evolutionarily or developmentally. But is this a palatable resolution of the matter?

The trouble is especially acute for views of the moral or political that seek to ground the title to certain (moral or political) privileges or standings upon hypothetical agreements (or equivalents thereof) entered into by numerous moral parties, on the basis of reason, or a veil of ignorance, or some such. Many feminists find themselves attracted to views such as these. But the findings on human nature have bearing here: what do they look like who enter into such contracts? What does it mean, from the point of view of agency or choice, to strip someone of some particular feature that is relevant to *their* governing of *their* behavior? For if either the sociobiologists are right, or if I am, then human agency is very different from the romantic, manifest image to which these theories appeal, whether for right-wing political ideals, or for left-leaning ones.

Now a philosopher of Kantian sensibilities might persist: but the human nature on which we seek to found our moral theories is not biological at all, it is simply a precondition of action. If there is agency at all, even if it is the self-invented kind, the precondition must be met. The precondition is logical or ontological, rather than biological or psychological. And so empirical science cannot testify to its non-existence. This is a more moderate Kantian stance than the one put forward by Koorsgard, but nonetheless a recognizably Kantian one vis-à-vis the role of introspection on the subject of agency. Of course here it will matter what we say those preconditions are: what are these conditions, if not the counter-indicated ones that Kantians have already indicated? They had best be compatible with the best-supported empirical theory of agency. Ironically, E. O. Wilson was enormously sensitive to these agency questions and recognized the failings of what I've been calling the romantic model. And he meant to put in its place a more empirically sound model with important features for our current problem. In 1978 he wrote that

> ... the human mind is not a tabula rasa, a clean slate on which experience draws intricate pictures with lines and dots. It is more accurately described as an autonomous decision-making instrument, an alert scanner of the environment that approaches certain kinds of choices and not others in the first place, then innately leans toward one option

> as opposed to others and urges the body into action according to a flexible schedule that shifts automatically and gradually from infancy into old age. The accumulation of old choices, the memory of them, the reflection on those to come, the re-experiencing of emotions by which they were engendered, all constitute the mind. Particularities in decision making distinguish one human being from another. But the rules followed are tight enough to produce a broad overlap in the decisions taken by all individuals and hence a convergence powerful enough to be labeled human nature.[37]

But Wilson had nothing more useful to say about this overlap, so abstractly characterized. And in any case, the overlap suggested by this passage is not guaranteed to be uniquely human: if we take another primate or even a cetacean species, the overlap we might find amongst its different "particularities" might be exactly as we find amongst humans. This shows that, even if we think there is something to the idea of a human nature along the lines suggested by Wilson, this nature is not biological as such. And this news can be either good or bad for philosophical purposes. It will depend on how we fill in the details. To my knowledge, no philosophical account of agency simultaneously fills in these details at the same time as it harmonizes with the account of contextualized self-integration or self-invention that I have put forward.

The Kantian might reply that we do not really have to fill in details: agency is just whatever happens to lend systematicity to a lifetime of behaviors. This answer, unfortunately, will not do. For the systematicity might be better explained by elements external to the agent, for example, in the culture, or in the person's special social setting. The locus of systematicity might transcend the agent as an individual. And while this is a perfectly respectable account,[38] and fully compatible with

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37 *On Human Nature*, 67.

38 Cf. the debate over systematicity of language, as between computational and connectionist theories. For a summary, see Andy Clark, *Mindware* (New York: Oxford University Press, 2001), 76–79.

the account of agency I am advancing, it is inhospitable to a Kantian treatment of the matter.

This suggests we might find more promising a view to the effect that moral and political geography does not contain anything like titles or rights that rest on some generalized feature — some capacity — of the title holder. And this leads to the view that moral and political ontology hasn't anything much to do with capacities. It should, instead, be focused upon sufferings or harms, and their eradication, especially sufferings of the weak and oppressed. Moral philosophy should devote its energies to the alleviation of suffering. This is no new doctrine. It is the familiar message of consequentialism, in a utilitarian form.

Now I am painfully aware that consequentialism requires some, if possibly only a very sketchy, account of human flourishing to get off the ground: for if we are to make things better, as individuals or as communities, we had best have on hand some concrete conception of what is better and what is worse. And this is where the doctrine of human nature purportedly comes in: it fills in the details on the question of what makes people's lives better. And this is no less true when it comes to feminist concerns. "I take it to be feminism's position," writes Antony, "that women under patriarchy are systematically *dehumanized* — treated in ways that prevent or impede the full development of the *human* capacities."[39] But is this the only way to be a feminist? Can't we equally say that women, under patriarchy are systematically treated in ways that prevent them achieving the same things as men? And similarly for members of oppressed populations vis-à-vis their oppressors? Couldn't we focus simply on the barriers to achievement, instead of on the capacities for that achievement? Feminist concerns aren't so much that everyone should flourish to the same degree but that there should be no barriers to any flourishing a person seeks, premised upon their sex. So the theory of flourishing could be more modest, for the sake of political philosophy, than usually it's made out.

This brings out the question of whether moral philosophy should not start with political philosophy. If, as some moral philosophers

39 Antony, "Human Nature and its Role in Feminist Theory," 85.

have suggested, morality is a matter of resolving conflict of interest,[40] then there is no real barrier to the position that moral philosophy is political through and through: moral philosophy is first and foremost about what we should do as communities and collectivities, and that the distinctively moral (if there is any such thing) is a matter of what follows for individuals upon the heels of what communities should do as collectivities.

Now contractual thinking in a moral philosophy (whether in the style of Kant or some variant) performs two important jobs. First, it identifies the claimant (to a status or a performance or a right) on the basis of some capacity or other. But it also identifies the target upon whom the claim is made — the entity that bears the obligation to meet the claim — again on the basis of some capacity possessed by that target. But if capacities are not sufficiently invariable for this function, how is a moral theory to identify the bearers of obligation? Who has the obligation to do something about suffering? The consequentialist's answer is that the obligation to help falls on absolutely everybody, but that some folks are better placed to do something about it than others.

In effect, this has been what certain evolution theorists, venturing into the political arena, have suggested. They recognize that the message to the effect that human behaviors are biologically evolved and biologically "funded," does not come as a piece of happy news to us, that it has the distinct effect of alienating many of us from our behavior — of distancing us from behaviors we shall be forced hereafterward to view as proceeding from numerous deep recesses in the mammalian or primate brain. For behaviors that simply cannot be tolerated, there is a suggestion on offer, by way of effecting an apparently desirable change, especially for women: we should undertake as a society to ensure that conditions that evoke certain responses, that result in undesirable behaviors, be minimized. So David Buss writes: "We are the first species with the capacity to control our own destiny. The prospect of designing our destiny remains excellent to the degree that we comprehend our evolutionary past." His practical suggestions, vis-à-vis friction between the sexes, are along the following lines: men tend to overinterpret the sexual intentions or receptivity of a woman

40 This idea is perhaps strongest in the writings of Kurt Baier, but it also comes out to some degree in Peter Singer and David Gauthier.

who smiles at them, is friendly to them, or arrives at a bar alone; so an understanding of this fact might help us design interventions for unwanted sexual advances leading to sexual aggressions that amount to moral violations. "Although it would be naïve to believe that all human conflict can be eliminated, an evolutionary psychological analysis provides several paths toward producing greater harmony between the sexes. To use a physiological metaphor, we have evolved callous-producing mechanisms, but we can design our environments to be relatively free of friction, thus preventing the development of callouses."[41]

A certain range of proposals from sociobiologists for improving the human condition seem all to agree: solution to conflicts engendered by biological brains have to be social or political in character, not personal or "moral." In support of this proposal, there is the contention that moral sentiments are themselves part of the problem — they are part of the means of sustaining that culture that is the (quasi-stable) resultant of numerous strategies devised over time by many parties to an interlocking network of conflicts grounded in varying degrees of kinship and association, in sex, and in age.[42] Moral sentiments are thus no place to begin cultural transformations. Transformations have to begin on a larger scale — not as micro endeavors of individuals

41 Buss, "Evolutionary Insights into Feminism and the Battle of the Sexes," 314. Sarah Blaffer Hrdy is somewhat more skeptical. Her research on the role of parental investment in shaping the human species lead her to this, somewhat contrasting, conclusion: "We are a clever and highly innovative species, but not infinitely so. Our past matters, not just on the physical, but on the emotional front. Does this mean we have no conscious choice over how we lead our lives? Not at all. People exercise free will all the time — but only in those areas where Mother Nature cuts them some slack. A woman can choose which baby she will adopt, but falling in love with that child will not be automatic.... This book will make clear why efforts to legislate a mother's love — by telling a mother with an unwanted pregnancy, for example, that she must carry it to term — are so often destined to end badly" (*Mother Nature*, 117).

42 This is intimated especially by the work of B. Smuts: "The Evolutionary Origins of Patriarchy," *Human Nature* **6** (1995): 1–32 and "Male Aggression Against Women." But compare D. Krebs, "The Evolution of Moral Behaviors," *Handbook of Evolutionary Psychology*, C. Crawford and D. Krebs, eds. (Mahwah, NJ: Lawrence Erlbaum Associates, 1998), 337–68.

doing the right thing, but as full-scale macro efforts to re-make the environment as we'd like it to be. However we ultimately judge the contention that moral sentiments are part of the problem, the conclusion of the argument converges on the one now under consideration: moral undertakings are essentially public enterprises.

Of course this goes against certain proposals in feminist moral philosophy of articulating a distinctively feminist theory of individual moral deliberation, consonant with the experience of women. Many feminist moral philosophies — such as care ethics, maternal ethics, and lesbian ethics — are reactions to the despised male-boostering varieties. It is well known that Carol Gilligan, to whose name feminist care ethics attaches, reacted to perhaps the most famous theory of moral psychology — L. Kohlberg's six-stage cognitive-developmental theory of moral development — according to which at the highest pinnacle of moral reasoning there is a Kantian law-giver stage, during which the fully developed moral reasoner rises above deference to authorities and devotion to loved ones, to decide moral matters in consonance with principles of justice. Gilligan objected to Kohlberg's acclaim of masculine forms of moral reasoning (as she put it) to the disadvantage of more feminine, devotion-dominated forms of reasoning, which appear at lowly stage three, quickly to be discarded once for all upon the appearance of stage four. A hierarchically-characterized stage theory, she argued, is unfounded, and speculated that, whereas men typically interpret their greater independence and reliance on an ethics of justice as signs of their moral growth, women tend to regard their greater interdependence and reliance on an ethics of care as signs of their moral growth.

While individualistic forms of moral theory, particularly those that promise new insights from neglected perspectives, are worth considering, especially in relation to those theories they are intended to displace, they do not address the larger issue of whether moral theory as such should be in the personal therapy business at all. This larger issue is brought out most forcefully by the agency questions we have been canvassing. And a forceful suggestion is being made, ironically also by practitioners of what I have been referring to as "sociobiology," that there might not be agency enough left at the end of the day, measured by what we find in the romantic vision of the self, for moral theories construed on an individual level.

Whilst there is indeed a lively tradition of individualism among feminists of all kinds, feminism was, in the first instance, a political movement. As such it had insisted — as a moral imperative — upon changing the macro conditions under which women labor. And so the proposal that morality must itself be a public policy, which rests most securely (I am persuaded) on the emerging understanding of human agency in developmental and cognitive science, is a ringing endorsement for feminism as a political enterprise, as against an exercise in moral philosophy understood in the traditional sense.

Personal and Trans-personal

Some philosophers — and moral philosophers are at the center of the bunch — believe in philosophy as an armchair business (the technical phrase is *a priori*), concerned with topics to which there is no routine scientific access. This conception of philosophy owes us an account of why the methodology has any validity. The answer ready-to-hand is that philosophy deals with concepts and that there is no other form of direct access to concepts. The trouble with this rationale is, of course, that it is difficult to support in light of controversies that swirl around the issues of articulating just what concepts are, how they originate, and how they make contact with objects and realities that antecede them. Furthermore, it is no small matter to justify the directions taken by a discipline that purports to deal in a proprietary fashion with concepts, against a background of common knowledge of the checkered history that certain concepts have enjoyed, how certain factions have fought over control of them, and how they have played a role in social and intellectual history.

Moral philosophers have generally approached the pair of topics of (1) moral imperatives and (2) human nature, as linked and subject only to armchair examinations. Many philosophers still treat the two topics as of a piece, and as if both fall squarely in philosophy's private preserve. Furthermore, philosophers have looked upon theories treating one of the linked topics as reinforcing or informing theories upon the other. With the rise of psychology and evolution research, human nature has come increasingly under empirical, extra-armchair scrutiny. This has tended either to destabilize moral philosophy or

to make philosophers withdraw further into the armchair for the philosophical — as contrasted with scientific — account of human nature. To my mind this, in a capsule, is the history of what I have been calling the manifest image of the self.

As I've depicted it here, science on the topic of human nature comes in two strands: (1) the evolutionary strand that emphasizes the natural history of behavioral features of a very successful and populous biological lineage (what we might glibly call the population-level side of things), within a broadly biological framework, and (2) the clinical strand (focusing upon the first person) that emphasizes existing neural function in each organism taken individually, and its susceptibilities to development, training, and reorganization subsequent to traumatic experience. I've presented a case for maintaining that both strands have (quite different) insights on the subject of human behavior and that we must give each strand of research its due weight: we neglect one side of the matter at the risk of misrepresenting the realities and complexities underlying the varieties of human behavior.

Indispensable are both first-personal and population-level accounts of human behavior. And both originate from extra-armchair scrutinizing of how matters really stand in the world of agents. Is there any space left over — any subject matter left — for armchair scrutiny of human agency, when once the matter has been scrutinized from both evolutionary and clinical angles? Here we must proceed with caution. We do not wish, simply out of enthusiasm for science, to shut down questions that scientific scrutiny cannot light its gaze fully upon. On the other hand, we do not want simply to take for granted that there is a topic in this area on which empirical scrutiny cannot shed any light whatever. There is a middle way. This is to allow that philosophy has something to contribute, particularly in the way of integrating findings and rooting out contradictions. (Some of what philosophy has to offer is illustrated in the present essay.) But philosophy's contribution cannot be a doctrine according to which science can shed no light on the topic of agency. After all, agency itself is contingent. Thus philosophy may not turn a blind eye, *a priori*, to the findings of science on topics to do with agency. To be sure there must be checks as well as balances: all purported findings have to stand up to scrutiny for hidden premises. So philosophy must, as usual, engage in the kind of enterprise for which it is best known.

But this is far from the doctrine that the topic of agency is the private preserve of philosophy.

In this essay I've illustrated the effects of exposing the question of the self to empirical scrutiny, showing that it leads to a partial dissolution of the manifest image. And that this, in turn, leads to seeking articulation of the relationship between moral and political philosophy, as to whether the latter might not be the more fundamental relations in which individuals stand to each other. The suggestion that the matter might not turn out as usually presumed in some heavily individualistic traditions of moral and political philosophy flies in the face of instincts deeply grounded in armchair methodologies because from the armchair all questions of what I should do have the ring of personal rather than political questions. It is the dogma of the armchair. Indeed, it is in the very nature of the armchair — the armchair's inferior grain. Philosophy needs to rise above it, and in today's increasingly interdisciplinary climate is more than ever before poised for doing so.