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Darwin and Girard: Natural and Human Science

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Like all scientists, I am in search of the common factor, the pattern, rather than the difference.
(René Girard 144)

Ever since the publication of The Origin of Species in 1859, Darwinism has been the flashpoint of the God/no God debate, especially here in America. On the latter side of the dispute, religion in every form has been attacked for its dogmatic irrationality and for the violence that has been committed in its name. René Girard's Mimetic Theory can make a special contribution to this debate for the following reasons: it is fully in accord with the theory of evolutionary biology, especially in the light of recent discoveries in neuroscience as they bear on childhood development and human interaction more generally; and it advances a theory of cultural evolution in arguing for a science of religion, which it sees as adaptive for the initial survival of our species. This is because it systematically addresses the origin and baleful outcomes of intraspecific, internecine violence which is unique to humans and which in the nuclear age threatens our survival.

Let's look at Darwin first, as he is represented early in the Lookingglass play, where we meet a child interested in bugs. This is a fictional scene, but not the least implausible, as all children are drawn to these tiny creatures, perhaps because we can control them, move them around, and sometimes gleefully destroy them without fear of reproach. Young Darwin is interested in their variety: why are two of these beetles different? What accounts for their differences and similarities? He is looking for a pattern, which is the scientific attitude par excellence: "the search for patterns is the basis of all scientific investigation: where there is pattern, there is significance" (Watzlawick 36). Where do these little animals come from? Where does anything come from? Darwin's English culture has an answer to that question: the God of Creation as told by the Bible, whose credibility the mature scientist will be seen as threatening, which is ably dramatized in the play.

It has traditionally been the task of religion to explain origins in a way which put all further questions to rest on a non-rational basis. The quest for a rational explanation of origins is a relatively recent development in human history, which some date from the 18th century Enlightenment, others from the 16th century Renaissance and Reformation, still others from the prolonged medieval inquiries into logical reasoning itself that leads to scholasticism as the watershed of Renaissance rationality (Whitehead). We cannot go back as far as Greek antiquity because their accounts of origins are uniformly mythical: there are multiple gods for multiple beginnings, who are not accountable to humans, though humans need desperately to stay on their good side, typically via ritual sacrifice. Aristotle (Posterior Analytics 1.10), literally begs the question when he stipulates rightly that we can only argue from first principles, not for them, without succumbing to the infinite regression of seeking a reason for bothering to reason at all.

Aristotle was nonetheless a formidable observer of the natural world and remained a model for inquiry for centuries. He offers no explanation for how things came into being; for him the

natural world existed eternally; and he carefully eschewed any reference to the gods of his own culture. The idea of origins has been the domain of religious or mythical thinking, which science has steadily discredited, though without abandoning the quest for origins, which is essential to its rationality. How can we know about anything without knowing where it comes from?

In Darwin's time, developmental thinking is in the air, at least in part because of the French Revolution and its Napoleonic aftermath, engulfing Europe in 25 years of unprecedented, spectacular violence which shook European institutions to their foundation, and injected a sense of historical change in everything. The rise of the novel, typically as a coming of age narrative, is an indicator of this, but all natural and social sciences that emerge in this century have adhered to this outlook. The search of a unifying generative principle is the hallmark of Western cognitive ambitions: for de Tocqueville in politics, it is equality; for Marx, heavily influenced by Darwin, labor is the hinge pin of political economy; in Pasteur's breakthrough germ theory, emergent growth of bacteria in nutrient broths is due not to spontaneous generation, but rather to biogenesis (Omne vivum ex vivo: "all life from life"). And this has become the procedural model for modern medicine, where evolutionary biology is strictly indispensable: we can study the spread and mutations of a virus by accelerating generations of it in a laboratory; Mendelian genetics, discovered independently of Darwin and confirming his theory, has revolutionized all life sciences.

The Greeks have bequeathed to us a maxim for this unifying quest: Archilochus's notorious "πόλλ' οἶδ' ἀλώπηξ, ἀλλ' ἐχῖνος ἓν μέγα" ("the fox knows many things, but the hedgehog knows one big thing"). This presocratic adage has remained the mentor of our greatest scientists, hedgehogs all in their search for a unifying principle, a single idea in terms by which to explain myriad phenomena: for Galileo, it is heliocentrism; for Newton, gravity; for Einstein, relativity; for genetics, the double helix. Parsimony, the aim to explain much with little, has been the rule of reason since Thomas Ockham, in the 14th century, declared his razor principle, that entities should not be multiplied unnecessarily. If one principle has explanatory range, no need to pile on others; two of them is one too many for universal significance.

Darwin's 5 year world-wide observation of phenomena and collection of data lead him to discover one idea, natural selection, which we find very succinctly and clearly formulated in the Introduction to the Origin of Species (Darwin's prose being a marvel of its own):

As many more individuals of each species are born than can possible survive, and as, consequently, there is a frequently recurring struggle for existence, it follows that any being, if it vary however slightly in any manner profitable to itself, under the complex and sometimes varying conditions of life, will have a better chance of surviving, and thus be natural selected. (37; see also 81, 82)

And in response to attempts to inject a creative power into the process, he vigorously applies Ockham's razor:

I entirely reject as in my judgment quite unnecessary, any subsequent additions of "new powers and attributes and forces"… If I were convinced that I required such additions to the theory of natural selection, I would reject it as rubbish, but I have firm faith in it, as I cannot believe, that if false, it would explain so many whole classes of facts, which, if I am in my senses, it seems to explain. (216)

It was obvious to him, if not too many among us, that the integrity, the inner coherence and validity, of natural science must keep the supernatural at bay, as our play shows. Darwin famously eschewed the controversy swirling around him. And it is just for this reason that René Girard's mimetic hypothesis of human and cultural origins is of interest here, as it advances a generative theory of cultural origins rooted in sacrifice. It is not a religious theory, but a scientific theory of religion, and in its minimalism, its parsimony, it appeals to Darwin's own texts as a model for its epistemology, for its explanatory power and cognitive validity. We find this in a volume of extended and probing conversations with Girard on his ideas, Evolution and Conversion, each of whose chapters begins with an epigraph from Darwin's writings. In fact, On the occasion of Girard's induction into the Académie française in 2005, the eminent French philosopher of science, Michel Serres, described him as the "new Darwin of the human sciences" for the understanding he brings to the emergence of the human, hominization by name, and to the scientific revolutions that mark the evolution of Western culture.

Girard's one idea, his unifying principle, is mimesis, and it leads him to a hypothesis of human origins and of cultural organization rooted in sacrifice. By mimesis he means the way we humans imitate one another consciously and non-consciously, deliberately and reflexively, unthinkingly, in myriad ways and at a variety of levels. Mimetic or matching behavior is common to all forms of animal life, but the human animal that we are is hypermimetic, owing to the ever increasing brain size among higher mammals, especially our simian ancestors. The recent discovery of mirror neurons in humans and some monkeys as well, which fire when we observe others' behavior, is evidence of this. With the increase of mimetic faculties there is a decrease of instinctual brakes, such as alpha males, pecking orders, of the kind that limit aggression in *any one* species, which are perfectly at home in devouring other species, animal or botanical. It is what they do to survive. Girard's ideas bear on the survival of the human species, as we are balefully aware in our nuclear age.

It is a paradoxical theory in that it describes unique features of human interaction in a way that is available to common sense and that, on the other hand, we are least likely, in fact most reluctant, to accept about ourselves. Girard's original insight is as simple in its structure as it is broad in its implications. It bears on patterns of behavior observed by our greatest writers (Cervantes, Stendhal, Dostoyevsky, Flaubert, Proust, and in a later book, Shakespeare), who reveal that desire is mimetic; it imitates, consciously or not, another's desire in its choice of objects. This is the case for children in a nursery, for lovers in society, for consumers everywhere. This desire leads to conflict and often to overt violence when its object cannot be shared, e.g., a sexual partner, a position of sovereign authority, a schoolroom toy, where rivals reciprocate as models for each other's desire and as obstacles to its fulfillment. Examples of this behavior, trivial and tragic, superabound within culture, between cultures, and in history at large. Mimesis is essentially neutral: imitating others' behavior is how we learn and collaborate. Upon reflection, we can see that most of our decisions are made by imitation, which current laboratory research in childhood development shows to begin in earliest infancy (Meltzoff in Garrels, Mimesis and Science; Iaccoboni). But mimesis is also at the base of violent and frequently lethal conflict.

The human species is the only one which is a greater threat to its own survival than anything in the rest of the animal kingdom, anything at all in the natural world. Scientific evidence of climate change more than suggests that we are in fact in a headlong course of self-destruction, if not by nuclear disaster, then by devastation of our ecological habitat.

Intraspecific violence is bound to escalate, even as Hobbes conceived it in chapter 13 of *Leviathan*, where he describes the violence of all against all proceeding from mimetic desires and leading to the inevitable devolution of human groups, where life if "nasty, brutish, and short." No community can survive in this maelstrom, but no social contract, no political concord, is conceivable amidst such reciprocal and self-replicating contention. In his study of Greek tragedy and of archaic myth worldwide, Girard shows that internecine conflict is resolved by massive recourse to a scapegoat victim. By easily imaginable processes of elimination, violence inevitably streamlines and converges on a single victim whose unanimous destruction consequently unifies a community in a provisional and precarious harmony--until other rivalries emerge and other scapegoats are required for the eventually ritualized reenactment of cultural origins, in the form of sacrifices which celebrate the victim of communal violence as its founding divinity. The scapegoat absorbs the violence of the community and is divinized for being host to that unanimity and cooperation/ collaboration. In this regard, the essential dynamic of social formation and organization is sacrificial in its operations and the study of human relations involves the study of scapegoating in its overt and covert manifestations.

The overwhelming consensus of research in archeology and anthropology confirms the religious origins of culture. While arguing for the unity of all myths and rituals, Girard's hypothesis traces our origins to patterns of behavior still visible and verifiable among us in today's world. Here we can apply what Darwin says of natural selection to Girard's discovery of the scapegoat mechanism that emerges as the solution to intraspecific violence in which no community can survive: "What I believe was strictly true is that innumerable well observed facts were stored in the minds of naturalists ready to take their proper places as soon as any theory which would receive them was sufficiently explained" (159). For both, as Girard writes of his own ideas, "It is the multiplicity of consistent elements that constitutes proof" (160). What Girard says of his research aims applies to Darwin's as well, namely, "to find invariance and repetition of similar patterns and motives" (166), the motive for all life being survival, the motive for human life being to survive its self-destructive violence.

This does not mean that humans are subject to biological determinism, on the contrary. It is our hypermimetic desire that frees us from the determinism of natural selection (12):

Only mimetic desire can be free, can be genuine, human desire, because it must choose a model more than the object itself. Mimetic desire is what makes us human, what makes possible for us to break out from routinely animalistic appetites, and construct our own, albeit inevitably unstable, identities. It is this very mobility of desire, its mimetic nature, and this very insatiability of our identities, that makes us capable of adaptation that gives us the possibility to learn and to evolve. (58)

Evolution, adaptation: mimesis is to cultural evolution what natural selection is to biological evolution. What our earliest ancestors learned over thousands, perhaps hundreds of thousands of years of ritual and sacrificial practices is how to control violence, how to streamline and channel it against a single victim or group of victims as a means to restore unanimity, cooperation, collaboration to their communities. Humanity is the child of religion (72). Our species-being as the "symbol using animal,"(Burke 16), Aristotle's "zoon logikon ," hinges on the inaugural, originary role of the hallowed scapegoat victim as a signifier of the protective, sacrificial violence awarded to the founding divinity; it is a signifier of communal origin. The symbolic level is achieved when signs refer not merely to things (dogs apprehend that) but to each other:

In order to deal with the cognitive complexity of this handling of an emerging symbolic sphere, a larger size of brain was then required, and the scapegoat mechanism acted as a form of evolutionary pressure, as an element of natural selection…. There are signs that refer to the outside world and signs which refer to each other, and it is precisely this referring to each other that the primates will never master. This is indeed the symbolic level. 107

Linguistic self-reference, as is occurring here, is sub-tended, underwritten, mediated by the sacrificial center as host to the community's ability to convene and reconvene itself around its victims. Whence Girard's claim to "a realistic, materialistic interpretation of religion, an integration of culture and biology through the scapegoat mechanism" (25) Homo sapiens, sapiens, Homo mimeticus is also homo religiosus, because religion has proven adaptive for our species, protecting communities from their own internal violence that threatens to tear them apart. There is no lack of evidence for this kind of cultural meltdown around the world today.

The mimetic hypothesis is also a theory of history, of the evolution from ritual practices to institutions, which are never without overt or covert sacrificial practices as means of consolidating identities over against others, their scapegoats (think of the more or less formalized practices of exclusion inhabiting educational, juridical, and economic structures). Today we live in a global culture which is dominated by the twin engines of Western modernity, techno-science and the market economy, in which overt sacrificial practices are no longer viable, nor are they, in principle deemed morally acceptable. Scapegoating, in its modern sense, means blaming others for evils in which many, or all, are complicit, and this moral impulse too has a history, a genealogy, which Girard traces to the critique of sacrificial practices that is the abiding legacy of Hebrew and Christian Scriptures: through its prophets, slain to a man by their own people, the God of Israel says "I want mercy and not sacrifice," and Girard argues that the passion, death, and resurrection of Jesus places the Creator God's stamp of approval on this critique, as well as on the countervailing "new commandment" to "love one another" rather than seek to blame others for our trespasses. This is a properly theological claim, but it is based in Girard's mimetic anthropology which is fully spelled out, for "those who have eyes to see and ears to hear," as the saying goes, in the Sermon on the Mount, which cautions against every form of vengeful reprisal, of mimetic, reciprocal violence. The Kingdom which Jesus proclaims is "not of this world," by which is meant the world of the "powers and principalities" into which human communities cluster over against others, from within or without their boundaries.

To recapitulate, tragedy and philosophy in ancient Greece initiate an ambivalence about its religious heritage, but it is Hebrew scripture that inaugurates a fully articulated critique of sacrificial practices: it begins with the murder of Abel which his founding divinity reproves rather than prescribes; it continues with the Abrahamic renunciation of human sacrifice and crowns the story of Joseph who forgives the jealously rival brothers who had sought his destruction; it culminates in the prophetic tradition which ringingly denounces ritual zeal in favor of reconciliation and succor of the defenseless, the stranger. This highly self-critical tradition reaches its climax in the crucifixion narrative of the Gospels, which proclaims the innocence of a victim of crowd mimesis whose members, we are told, "know not what they do." The return of the forgiving victim in the resurrection testifies to the will of a God who has nothing to do with human violence. Humans are thenceforth confronted with responsibility for our own violent agency, however unwitting. Forgiveness is not urged merely as a moral ideal but as a practical solution to conflict, a better way of living together. There is ample research on the significance

of mimetic theory for reconciliation tribunals taking place around the globe, and for restorative justice to be worked out within a community as a more viable and humane solution to neighborhood crime than the retributive justice of our ineffectual, brutalizing, and hugely wasteful carceral systems, especially in America.

There are myriad other examples, religious and secular, of non-violent efforts around the world to reduce the harm that humans do to one another at the very least, and maybe to offer positive help as well. Even the mere lip service we pay to these efforts is testimony to a revolution in values that convenes all the great world religions. Ancient empires expanded for their own sake, committing conquered peoples to enslavement, exile, or extermination. Modern empires expand under the banner of doing good for its subjugated populations, and we judge them not by their proclaimed intentions but, as the saying goes, "by their fruits."

It is not necessary to believe that a Creator God, or a Forgiving Victim, is at the helm of these universally approved objectives. It is only, at a minimum, necessary to believe what scientists everywhere believe, their credo being that the natural world exists, that it is orderly, and that it is knowable. The human self-knowledge that mimetic anthropology brings to the world validates these benevolent efforts objectively. By this adverb I mean what Girard means about belief in God "within a traditional epistemology, which considers things as real and sees God as the guarantor of that reality": "I don't see why God could not be compatible with science. If one believes in God, one also believes in objectivity. A traditional belief in God makes one a believer in the objectivity of the world" (147). This is the epistemological infrastructure, the ontological underpinnings, of Darwin's post-sacrificial world, which no terrible divinities visit with scourges, catastrophes; it is a world confident in the conviction that microbes, not men, cause plagues, that waves born of tectonic shifts, not witches, cause tsunamis. With or without God, we take this objectivity for granted, but in fact it is the hard won conquest of generations of anti-sacrificial critique resulting in the waning of religious persecution. We tend to think that science enabled this process, but it is the beneficiary instead. Darwin need not have subscribed to his culture's religious charter in order to have in effect conformed to Saint Paul's counsel: "Whatever is true, whatever is honorable, whatever is just, whatever is pure, whatever is lovely, whatever is commendable, if there is any excellence, if there is anything worthy of praise, think about these things" (Phil. 4:8).

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