



René Girard's Science of Religion: The Scapegoat Mechanism, Prefrontal Synthesis, and Collective Intentionality in the Process of Hominization

Gregory Joseph Lobo, Associate Professor, School of Social Sciences, Universidad de los Andes, Bogotá, Colombia, globo@uniandes.edu.co

This article discusses René Girard's "science of religion," examining its central idea—variously called the scapegoat, victimage, or founding mechanism—and its role in the process of hominization in light of the neuroscientific concept of prefrontal synthesis and the related philosophical concept of collective intentionality. The latter concepts, it is argued here, while unavailable to Girard himself, offer a way to make more scientific sense than is present in his account of the scapegoat mechanism in relation to hominization and his related and radical notion that "human culture and humanity itself are religion's children."



In a recent article on the priest and paleontologist Pierre Teilhard de Chardin's work and its relevance for the scientific study of religion, David Sloan Wilson (2023, 9) wonders, logically enough, what "happened in human evolution to make [human] communities much more cooperative" than, for example, chimpanzee populations. The somewhat imprecise answer given by Wilson (2023, 9) is "social control." The work of a compatriot of Chardin, René Girard,¹ would have offered Wilson a more clear-cut answer. The work of Girard suggests that religion itself, rather than a rough notion of social control, is what happened to human aggregations (it would be precipitous, as discussed later, to call them communities before its emergence), allowing them to cooperate in ways that animals—even chimpanzees—simply do not. Religion enabled this by managing without overcoming the endemic, endogenous, and centripetal violence to which, Girard argues, prehuman hominin populations always tended due to natural mimesis (and which still haunts us today). Such violence is decidedly noninstrumental, and the much-vaunted fact that human history is, as David Sloane Wilson notes, marked by cooperation ought not blind us to our less vaunted, but notorious nonetheless, disposition to engage in this lethal intra-conspecific violence to a degree and intensity that, again, animals, not even chimpanzees, match. Absent the production of religion, this latter disposition would have consigned prehuman hominin populations to endless cycles of a level of cooperation (which I would prefer to conceptualize as *coordination*) perhaps only as remarkable as chimpanzee teamwork, interpolated by bouts of violent dissolution and a precarious regeneration to population levels not much different from those of our primate cousins.

In an attempt to emphatically convey the radical implications of his theory, Girard (2008, 117) puts it thusly in one of his later works: "Human culture and humanity itself are religion's children." Girard's thinking on the emergence of religion is scientific in that it is rooted in evolutionary theory, which is to say, in hypotheses about humanity's evolved animal nature. In other words, it is rooted in thinking about the biology, brains, and consequent behavior of *Homo sapiens*. In this article, I want to examine Girard's "science of religion" (1987, 3), which explains that religion both derives from our animal nature, which is fundamentally mimetic (enabling coordination and violence), and constitutes our hominization, our becoming human, through the mechanism of the scapegoat. However, Girard's understanding of human cooperation and how it differs from animal coordination was constrained by the limits of scientific knowledge of the human brain as it relates to the development of culture. As a consequence, and because I am able to benefit from later developments in neuroscience, in this article I argue that his emphasis on the scapegoat mechanism as it stands may well be untenable. I thus suggest an emendation of Girard's account in light of developments in science and

philosophy that he did not have chance to consider. The developments have to do with phenomena called *prefrontal synthesis* and *collective intentionality*. I argue, finally, that an understanding of these phenomena gives grounds for positing not sacrifice—killing, murder—or the scapegoat mechanism but what I will call transcendence as the essence of the religiosity that still, nonetheless, emerged from our biology and drove the process of hominization.

Girard's Science of Religion: Mimesis, Violence and the Scapegoat Mechanism

Girard's theory of religion has not changed significantly since it was initially articulated and subsequently elaborated at length in first *Violence and the Sacred* (1977) then more definitively in *Things Hidden since the Foundation of the World* (1987). Here, I draw additionally from later works, *Reading the Bible with René Girard* (2015) and *Evolution and Conversion* (2008), in which Girard defends and expounds his theory without notable modification.

For Girard, everything begins with mimetic desire: all human desire is mimetic or “imitative.” We imitate the desire of a conspecific, the “model” for our desire (Girard 2008, 56–7). Since this article is concerned with hominization, I present Girard's account of that process or passage from precultural hominins to cultural human beings. For early populations of the primates who would become *Homo sapiens*—who have to be understood as our precultural ancestors, still ethological or zoological organisms without culture; referred to henceforth as *hominins*—despite rudimentary manifestations of coordination similar to those seen today among chimpanzees, “rivalry . . . eventually erupted” between two conspecifics, as each became the model for the other, for the model was as much subject to mimetic desire and behavior as was his imitator (Girard 2008, 57). They thus became rivals or opponents with respect to each other, which lead to neither being able to satisfy their mutually reinforcing, imitative desire. In short order, the “two rivals [became] more and more concerned with defeating the opponent for the sake of it, rather than attaining the object” they both previously desired (Girard 2008, 57). But though the object itself may have been forgotten, the violence need not abate. To the contrary, Girard continues, often enough this mimetic confrontation developed into full-blown violence. It is to be noted that this violence is not instrumental, nor is it subject to any level or degree of means-ends analysis. Such violence might well be the most common type, even today.

Swept up mimetically in this senseless violent reciprocity, the rivals became “doubles”; their actions relentlessly twinned as each thoughtlessly puts back into the confrontation that which the double, in turn, puts in “first.” Due to the fact that the hominin organism is essentially mimetic, the crisis was not contained by the form of the dyad but “[became] contagious with

bystanders” (Girard 2008, 57): other conspecifics within the population, and indeed eventually all of them, were drawn in as participants. This constitutes the mimetic crisis suffered by small aggregates of precultural hominins, each member of the population senselessly engaged in violence characterizable as *all against all*.

I have been drawing on Girard’s exposition in *Evolution and Conversion*. I now turn to *Reading the Bible* for a condensed account of how the mimetic crisis, having engulfed the population, was resolved and how religion—and humanity as such—emerged from this resolution. “We can assume,” he says, “that as the mimetic fighting increases, it involves the entire community” (Girard 2015, 39).² Next, still under the influence of mimesis, “more and more antagonists [begin] choosing the same antagonist” (2015, 39). Then,

there comes a moment when everybody is against the same antagonist, a single antagonist. So when a single antagonist has everybody against him, he’s going to die, to be killed. Then, at least for a brief moment, no one in the group will have an antagonist. The *death* of the last antagonist will *automatically* reconcile the group, because it will be the antagonist of everybody; therefore, peace, will *suddenly* return *because of this victim*. (Girard 2015, 39; emphases added)

I want to stress here that in this account peace returns automatically, uniformly, and suddenly to the population as a result of the killing. I stress this to draw a distinction, mentioned earlier, between what can be thought of as mere coordination—which at this point still resolves the crisis without complex goal setting, planning, and role taking—and something more complex, more human: cooperation per se, which would involve such predicates.

Girard continues as follows, treating what is in fact a plurality of distinct organisms (whose minds it would be precipitous to theorize, as Andrey Vyshedskiy (2019a) points out, since to do so would be to already anthropomorphize them) as a collective agent whose mind he understands:

In the *eyes of the group*, this victim seems to be responsible for the whole trouble; but he is also responsible, through his death, for the reconciliation. Therefore this victim seems all-powerful, for good and evil; *that victim is at first seen as “God.”* The victim seems to be the master of the crisis; she resolves it through her death. Just as this victim was deemed responsible for violence, so also the victim is responsible for the return of peace when everybody joins together against her. So we have a situation that is *suddenly* one of peace, and *the community rejoices*. The community is freed from the crisis, but this freedom is not going to last. Very quickly, mimetic rivalry will come back over other objects. Then the *people will remember* that a victim saved them, and *they’ll try* to do the same thing again. *They will deliberately choose other victims and kill them*

collectively in the hope that this will reconcile *them* again. It does, mimetically; this is the *invention* of ritual sacrifice. (Girard 2015, 39–40; emphases added)

This is a condensed account, but it contains *in nuce* Girard's theory of religion, especially as it pertains to hominization. For in as much as the "community" remembers the solution and re-enacts it—that is, kills in ritualized fashion a now-sacred victim—in order to minimize the violence that threatened it, it already has religion and its members have already become human. This is Girard's attempt at a scientific (nontheological) "integration of culture and biology through the scapegoat mechanism" (Girard 2008, 125), with the latter being the key to understanding how "religion itself is produced" (Girard 2008, 108) and hominization occurs.

In summary: the biology (including the neurobiology) of our hominin ancestors, left to its own devices, quite naturally episodically generated a particularly violent form of interaction that could engross the whole population. If the population did not destroy itself it is because the chaotically distributed violence coalesced—without planning or forethought or, strictly speaking, cooperation—on a single conspecific. The death of that one would have resulted in peace.

Now, as Girard (1987, 28) says in *Things Hidden*, the "community that was once so terribly stricken suddenly finds itself free of antagonism, completely delivered." In consequence, he continues:

the *community* attempts to consolidate its fragile hold on things under the still strong impressions of the crisis and its resolution, *believing itself* to be under the guidance of the victim itself. Clearly, two principal imperatives must come into play. (1) Not to repeat any action associated with the crisis, to abstain from all mimicry . . . This is the imperative of the prohibition. (2) To reproduce . . . the miraculous event that put an end to the crisis, to immolate new victims substituted for the original victim in circumstances as close to possible as the original experience. This is the imperative of ritual. (Girard 1987, 28; emphases added)

While both imperatives are constitutive of religion, it is the second that receives most attention from scholars. The scapegoat or victimage mechanism refers to the idea that after an untold number of iterations, the solution of killing a conspecific is collectively remembered and deliberately reproduced by the population in order to prevent or at least minimize the deleterious consequences of the violence afflicting said population. Such reproduction—the sacred essence of religion—is enacted by what can now properly be referred to as a cultural community; it is the moment something like modern *Homo sapiens* is born. It is called the scapegoat mechanism because the sacrifice implicates

the victim as guilty even though they clearly (to scientific eyes) are not. It is called a mechanism because it is argued to causally trigger or generate the non-natural—cultural—behavior of religious ritual in and across the entirety of the specific hominin population in question, leading to the appearance of nothing less than a behaviorally new species (Vyshedskiy 2019a).

The Metaphysics of the Scapegoat Mechanism

The scapegoat mechanism is the centerpiece of Girard's science of religion as it relates to hominization. Regarding its pivotal role in what he refers to as the "process of hominization," he affirms that "there is absolutely no question of attributing everything to the scapegoat effect" (Girard 1987, 32); this "collective murder" marks a "true rupture" between "animal nature . . . and developing humanity": it "is the origin of hominization" (Girard 1987, 97).

Yet, I am not sure it can bear the demands placed on it by Girard. Indeed, despite his scientific aspirations, the scapegoat mechanism as it stands seems to me more metaphysical than scientific, for how it works is not clearly explained, but it is nonetheless employed throughout Girardian discourse as a master but reductive *explanans* for religion and hominization. Metaphysics often refers to the study of ultimate reality, but additionally, to characterize something as metaphysical as I am doing here is to claim that its explanatory power is far too abstract and that it operates far above the level of detailed scientific explanation at something like a quasi-theological level.³ While I do not contest the idea that human beings often create community at the expense of scapegoats, I find no explanation in Girard's discourse, beyond forceful insistence, as to how the scapegoat mechanism causes religion and hominization. Thus, I would argue that it is not scientific, which is to say, it does not explain things at a sufficiently granular level. More specifically, though it associates the scapegoat mechanism with the appearance of ritual, it does not show causality in any precise way and thus can be characterized as relying on a logic of *post hoc ergo propter hoc*.

For example, in light of what is known about biology, issue might be taken with the temporality Girard describes: after the killing "peace, will *suddenly* return" and "we have a situation that is *suddenly* one of peace" for all those concerned (Girard 2015, 39; emphases added). This description ignores the fact that the mimetic crisis will necessarily lead to hormone secretions in the bodies involved. The effects of hormones in such situations are characterized as having a "slow onset and offset" by neuroscientist Joseph LeDoux (2019, 364), meaning that in the aftermath of the crisis the disruptive effects of the hormonal onset it provoked would "continue even after the threat itself [had] dissipated—one may feel 'shaken' or 'jittery' for some time after encountering a snake or being mugged" or being, I think it is safe to say, overwhelmed by the violence of a mimetic contagion even though it seems to have come to an end. Given that part of the purportedly scientific character of mimetic theory

is its naturalism, considerations of hormonal effects cannot be jettisoned in thinking through this primordial scene. Such a scientific detail is elided in Girard's account; readers are simply referred back to the scapegoat mechanism. Then, in addition to claiming that each organism apperceives the events and the consequence in exactly the same way (paraphrasing: "The victim saved us, the victim is a god!"), with each of his phrases Girard paints a just-so picture of all the pertinent individual consciousnesses being overcome immediately, at the same time and in the same way, by the effects of the killing, which were, in addition to being both homogeneous and unanimous, instantaneously pacifying. Again, the explanation of this is the scapegoat mechanism. I do not think it is too scandalous to suggest that this theory proposes an explanation that leaves open too many questions. The mechanism seems to have assumed something of a quasi-theological status and the power to produce, essentially, something out of nothing—which is why I refer to it as a metaphysics—driving the spontaneous emergence of a collective mind from cumulative experiences, which neither social nor natural science can abide.

On the other hand, my issue, to be clear, is not with Girard's description of the mimetic process, which science as it stands seems to support. Current research by data scientists, organizational theorists, cognitive scientists, and psychologists suggests that this scenario is far from fantastic (Farkas, Helbing, and Vicsek 2002, 2003). Reduced to its bare essentials, Girard's idea is that a population of hominins (our ancestors), small in number, was at peace and coordinated in a very limited way; this state of affairs was disrupted by conflictual mimesis; a local conflict developed into a violence of all against all; the violence converged on one particular conspecific who was killed; a general calm returned. This narrative is certainly not implausible. Given the type of animals we (still) are—mimetic: predisposed to automatic, non-representational, non-teleological emergent coordination with others (Knoblich, Butterfill, and Sebanz 2011; Makowski 2020; Passos, Davids, and Chow 2016) and automatic imitation (Heyes 2011) of others; unencumbered by the need to know what we are doing or why we are doing it (Cole et al. 2018)—it is rather plausible that our ancestors fell into mimetic contagions of violence that quite possibly culminated in a spontaneous, automatically coordinated assault of one member of the aggregate by the rest.

The larger issue is why this series of events should ever generate the outcomes Girard postulates. Why should this series of events ever be conducive to the emergence of a minded organism capable of complex symbolic operations like interpretation, logic, planning, and role-taking?⁴ Logically, such a mind would be necessary *a priori* to generate the interpretation—that the victim/god had caused the trouble, bestowed the solution, and should be henceforth appeased or conscripted to save "us" through future re-enactments by "us" of the immolation of a surrogate victim—in the first place. Why, in

other words, does the mimetic process need or lend itself to interpretation at all? If the collective killing was indeed a natural solution to a natural problem, no interpretation by the organisms involved would have been required. Such hominin populations could have muddled along at population levels not much different from those of the other primates without ever creating religion or becoming human.

Girard (1987, 89) poses the problem—a scientific understanding of “the origin of symbolic systems [culture, religion] on the basis of animal nature”—correctly; somewhat more dubiously, however, he locates that origin in the scapegoat mechanism: “The only thing an animal needs to become human is the surrogate victim” (Girard 1987, 102). It is as if the mechanism simply triggers both symbolic thought and the capacity for it. If that capacity was already latent in what he has called our “animal nature,” waiting to be triggered, then we are no nearer understanding what drove hominization. In other words, Girard’s earlier explications of the scapegoat mechanism do not really help us “think through the process of hominization” (Girard 1987, 89) nor, really, the production of religion—not in the terms of mutations and fitness advantages in individuals required by the scientific discourse of evolutionary theory, at least.

However, in a chapter of *Evolution and Conversion* titled “The Symbolic Species,” Girard’s interlocutors give him the chance to revisit the “emergence of the symbolic sphere . . . and the origin of culture within a naturalistic [scientific, evolutionary] framework” (Girard 2008, 96–97). In taking up the invitation, Girard begins by stressing that “the process of the emergence of cultural elements” has “no absolute beginning” and is “extremely complex and progressive” (Girard 2008, 97). Nonetheless, he repeats his fundamental point: “The creation of culture is engendered by religion through the victimary mechanism” (Girard 2008, 98). He still does not provide the details of how this could happen but explicitly rejects alternative possibilities. He dismisses, quite rightly, notions of individual human agency and any sort of “methodological individualism” (Girard 2008, 98–99) in the matter. “The group itself mediates everything,” he insists, and consequently, the correct level of analysis must be the “level of the *social group*” (Girard 2008, 99), for the “scapegoat mechanism provided a fundamental contribution to the *fitness* of the group” (Girard 2008, 99).

Girard (2008, 104), some forty years after first articulating his view, continued to view the scapegoat mechanism as a “collective mechanism” but also as the “origin” of “symbolic power.” Though his fundamental view was unchanged, he added the caveat that one “cannot point out the exact, isolated moment when it [the mechanism] happens and, finally, culture emerges” (Girard 2008, 105): “It has to be seen in a time-frame of dozens or even hundreds of thousands of years” (Girard 2008, 105). However, even just having opened the

door to a properly evolutionary, and indeed scientifically plausible, timeframe that might have allowed for a better understanding of the emergence of symbolism/culture/religion, Girard (2008, 110) returns to the central idea that it is a collective mechanism “which saves the proto-communities from [the] crisis of mimetic violence, [and] is disciplined into a ritual system” by the community as one.

My claim that this account is not sufficiently scientific is based on Girard’s reluctance or inability to problematize and thus theorize human *cooperation*, which is quite unlike animal *coordination*. His insistence on a group-level analysis is what renders Girard’s theory vulnerable to the criticism that, despite his aspirations, it is not quite scientific, since group selection, though seemingly plausible, has no scientific support (Dunbar 2022). Ironically, then, we seem to be dealing with something like an article of faith, a metaphysics, rather than a scientific explanation when it comes to understanding the emergence of cooperation in the development of hominization. I believe we can do better. But if I am right about this, it is only because I have had the fortune to become acquainted with prefrontal synthesis and collective intentionality, which will help understanding of how cooperation itself (rather than coordination) ever emerged in the first place.

Beyond Metaphysics: Prefrontal Synthesis and Collective Intentionality

Paraphrasing somewhat, Girard’s basic claim is that the scapegoat mechanism—participation in a collective murder—caused our ancestor hominins, over time, to move beyond mere coordination to cooperation (ritual). In so doing, it hominized our immediate predecessors. Cooperation, as I am distinguishing it from coordination here, is a skill or ability limited to humans. Conceived of as a distinctly human capacity, it is what philosophers (Margaret Gilbert, Angelica Kaufmann, Hans Schmid, John Searle) and developmental psychologists (Hannes Rakoczy and Michael Tomasello) call collective intentionality. It depends on symbolic thought. On what, then, does symbolic thought depend?

It depends on our brains. At one point in his attempt to shore up his argument that the scapegoat mechanism triggers symbolic processes, Girard, all the way back in 1978 when *Things Hidden* was published in French, quoted Jaques Monod’s *Chance and Necessity* from 1970: “It is the powerful development and intensive use of the *simulative* function that, in my view, characterizes the unique properties of man’s brain” (quoted in Girard 1987, 94; emphasis added). Oddly enough, Girard (1987, 94–95; emphasis added) uses this quote to support his claim that it “must have been the increasing power of *imitation* [mimesis] that initiated the process of hominization,” ignoring the fact that Monod is talking about simulation, or what might be thought of as voluntary imagination, which is not inherently related to mimesis at all. I mention it because here

Girard is nonetheless indirectly acknowledging the less spectacular claim that neurological mutations—rather than collective murders in and of themselves—subtend the process of hominization; this is the claim I want to pursue in developing an alternative to the more spectacular claim that the process is wholly indebted to the scapegoat mechanism. Again, Girard (2008, 99) privileges this because he believes it “provided a fundamental contribution to the *fitness* of the group.” What is needed, however, is something that contributes to the fitness of the individual organism.

Prefrontal Synthesis

Prefrontal synthesis (PFS) is defined by Vyshedskiy (2022a, 1) as “the ability to juxtapose mental visuospatial objects at will.” It can be thought of as the ability to imagine voluntarily, willfully, on purpose (not mere dreaming). For example, “PFS ability is essential to imagine a hybrid object with the head of a lion and body of a human; to predict the outcome of an imaginary event . . . ; to imagine yesterday’s football game per friend’s description; and to follow a fairy tale” (Vyshedskiy 2022a, 2). Furthermore, PFS “enabled articulate speech to communicate an infinite number of novel object combinations with the use of a finite number of words, the system of communication that we call recursive language” (Vyshedskiy 2022a, 21).

I introduce PFS here because such an ability would be essential to formulate and act upon the interpretation Girard gives the sequence of events of the mimetic process that lead to the elaboration of religion. Indeed, most pertinent for my considerations, “[r]eligious beliefs . . . are the ultimate products of PFS” (Vyshedskiy 2019b, 97). Now, both Vyshedskiy and Girard are working within an evolutionary framework, and only modern *Homo sapiens* have PFS ability, but Vyshedskiy is trying to understand the emergence of the ability to engage consciously in imaginative thinking (religious thinking) in terms of neurological development in response to general survival pressures.⁵ Girard argues that at some point such development occurred evenly and spontaneously⁶ across all members of a population, triggered (somehow) by the scapegoat mechanism, causing the invention of ritual (religion, culture) at the level of the group.

This group-wide phenomenon, however, would have been impossible, according to Vyshedskiy’s work,⁷ because humans only develop the potential ability to engage in PFS due to a genetic mutation that slowed the development of their lateral prefrontal cortex during the first five years of life. This is called the PFC delay mutation (Vyshedskiy 2019a, 22). However, the actual development of PFS requires exposure to recursive language use. The problem here is that recursive language itself depends upon PFS. The conundrum, then, is how could a population of hominins have acquired PFS all at once, without exposure to recursive language, and how could they have developed recursive

language without having already acquired full PFS ability? The scapegoat mechanism is not a scientific answer to this scientific question, which is why I previously referred to it being used in such a way as metaphysics.

To solve this conundrum within an evolutionary framework, Vyshedskiy (2019a, 26) proposes what he calls the “Romulus and Remus hypothesis,” which “calls for (1) two or more children with extended critical period due to ‘PFC delay’ mutation; (2) these children spending a lot of time talking to each other; (3) inventing the recursive elements of language, such as spatial prepositions; (4) acquiring recursive-dialog-dependent PFS; and (5) surviving to adulthood and spreading their genes and recursive language to their offsprings.”

This is what I would characterize as a properly scientific explanation, grounded in evolutionary theory, of how the very capacity for ritual might have emerged among our ancestors via mutations that would have supported symbolic operations in at least two individual organisms only and not at a stroke “at the level of the group,” as Girard supposes with his “collective mechanism,” as criticized earlier. Vyshedskiy (2019a, 26) continues: “As adults [presumably by age 13 or 14], Romulus and Remus could immediately entertain the benefits of the newly acquired mental powers. They could have engineered better weapons and plan[ned] a sophisticated attack strategy using animal traps and stratagem. They would have become more successful builders and hunters and quickly reach[ed] the position of power enabling them to spread their genes more efficiently.”

Vyshedskiy (2019a, 26) then invokes the notion of the “founder effect,” referring to “a few individuals who acquired PFS and nearly completely replaced the rest of hominins.” *Nearly* because even today “as many as 18% of modern individuals exhibit PFS disability” (Vyshedskiy 2019a, 4). There is no reason to assume that entire populations of our distant ancestors acquired PFS en masse, or that it eventually spread through the entirety of those early populations after initial acquisition by some conspecifics. But what can be supposed is that the “marriage of articulate speech and voluntary imagination [PFS] at approximately 70,000 [years ago] resulted in the birth of a practically new species—the modern *Homo sapiens*, the species with the same creativity and imagination as modern humans” (Vyshedskiy 2022a, 21), as the founders were able to translate their new ability to “see” things, both old and unprecedented, into reproductive advantage (fitness). More specifically for this discussion, while Vyshedskiy imagines that the founders of such a species would have turned immediately to weaponry and hunting strategy, I want to suggest that they might well have turned to interrupting the mimetic process, which they had witnessed and survived more than once.

The fact that PFS (and the ability to use recursive language) was not uniform nor universal suggests how, without relying on a quasi-theological causality provided by the scapegoat mechanism, the rituals of religion could possibly have

emerged over an evolutionary timeframe, turning natural hominin populations into religious human communities. I outline the process later in this article. But, for now, to properly conceptualize the difference between an animal population on the one hand and a human community on the other, the concept of collective intentionality is still needed.

Collective Intentionality

According to Vyshedskiy (2019a, 32), the “acquisition of PFS resulted in what was now in essence a behaviorally new species: the first *behaviorally modern Homo sapiens*.”⁸ Nonetheless, Vyshedskiy (2019a) seems to assume the givenness of the “tribe” rather than simply a population, even before the development of PFS and recursive language.⁹ As discussed, Girard refers similarly to the pre-religious hominin population as a “community” endowed already with some developed degree of cultural cohesion. I take issue with these understandings, which suggest the existence of behaviorally modern, culturally cohesive *Homo sapiens* prior to the appearance of PFS ability. I argue that for something like a tribe or community to exist in the first place requires something like PFS ability and, dependent on this, the ability to engage in collective intentionality. Otherwise, simply populations should be spoken of, which is what I do here.

Collective intentionality names the ability of human aggregations to conceptualize and engage in non-instinctual cooperative behavior (Searle 1990, 2010; Gilbert 1990) in joint projects. According to Tomasello (2008), Rakoczy and Tomasello (2007), Schmid (2011), and Kaufmann (2012), collective intentionality is strictly limited to humans. I argue that this is the case due to the fact that collective intentionality must depend on PFS ability. Crucially, Vyshedskiy et al. (2022) argue PFS disability (or its non-existence) impedes pronoun conceptualization, while Vyshedskiy (2019a) argues that PFS disability impedes the mental “combination of objects” into novel images (Vyshedskiy 2019a, 3), which is to say it impedes, again, conceptualization. Difficulties with pronouns like *I*, *we*, and *us* amount to difficulties in the practical apprehension of *my* goal-oriented actions being a part of *our* goal-oriented action, a complex intellectual operation that essentially defines collective intentionality (Searle 1990, 2010; Gilbert 1990; Turner 2003). Without PFS, becoming human in the sense meant here is difficult if not impossible, for PFS itself allows for recursive, nested ideation—my doing as a part of our doing—which is the logical structure of human cooperation or collective intentionality, though not at all necessary for genetically driven animal coordination of, say, chimps, wolves, or colonies of bacteria.

Girard never considered the phenomenon of collective intentionality nor its conditions of possibility. And Vyshedskiy seems not to be concerned with the phenomenon as such. But collective intentionality is the condition of possibility of any ritual, i.e., any non-instinctual collective behavior that is scripted or

representational, entails a telos, and requires conspecifics taking on roles. As Stephen Turner (2003, 147) puts it, “[g]etting to the point of agreement is a task; intersubjectivity of intention . . . or real co-intending, is not a given, but an achievement.” Ritual, in other words, depends on something like an implicit social contract. Girard (2008, 124), however, privileging the causality of the scapegoat mechanism, insists that “at the moment of supreme rage, supreme excitement, when you are out of your mind, ecstatic in the way of violence—there is no scope, no possibility, for social contracts.” Much more strongly, the “idea of social contract is an *absurdity*: it means that humans are rational enough to have an agreement that they will all subsequently respect,” which, he says flatly, “is not true” (Girard 2015, 37; emphasis added). Girard’s hypothesis is put beyond discussion: “The creation of a [human] society is the resolution of a violent conflict” (Girard 2015, 38), where the scapegoat mechanism produces—quite miraculously, as I have intimated—that resolution.

Nevertheless, he also observes that in that very moment of rageful, mindless, ecstatic violence, “the people will remember that a victim saved them, and they’ll try to do the same thing again. They will deliberately choose other victims and kill them collectively in the hope that this will reconcile them again” (Girard 2015, 40). Such an account aligns with the idea that “in ritual centred around the sacrificial act a *spirit of collaboration and agreement* pervades the re-enactment of all aspects of the crisis” (Girard 1987, 103–4; emphasis added), an idea upon which he also insists.

A commitment to the scapegoat mechanism predisposes Girard to reject notions of agreement, social contract, or collective intentionality in his attempt to theorize religion and hominization, but his discourse on these matters, being so extensive, cannot entirely suppress recognition of what an empirical understanding of human, as distinct from animal, being demands: the phenomenon of, but also the capacity for, collective intentionality, which I am arguing is subtended by PFS. In one sense this is trivial: of course everything is subtended by the brain. My point, however, is that the introduction of PFS specifically into Girard’s account must change that account at its core, decentering the scapegoat mechanism and putting in its place the plural first person.

Rupture: The Plural First-Person and a Science of Religion

I now propose an account of religion that is more naturalistic and, I dare say, more scientific than Girard’s because it is based on how *Homo sapiens* actually cooperate and uses an evolutionary framework. Girard, believing himself to be employing a naturalistic and indeed scientific method, argues that the “scapegoat mechanism can only emerge from social grouping, like the herd or the pack” (Girard 2008, 102), because with “the pack one gets closer to society” (Girard 2008, 102). The problem with this supposition is

that while herds and packs imply numbers of conspecifics, they are not otherwise particularly similar to human society. Their coordination is natural and spontaneous, preordained, so to speak, by their genes: they cannot *not* coordinate. While hominin populations would have coordinated as packs and herds do, human society as we know it emerged on the basis of a rupture with that ability to coordinate naturally and unconsciously. Complex human sociality depends on cooperation: organized, conscious, and purposeful coordination. Such sociality does not happen spontaneously but emerges out of negotiation and agreement, which are only possible because of collective intentionality and PFS: these allow for a self-sense nested within the sense of another, the sense of others, in interrelated activity. Individual chimpanzees, for example, participate in the hunt automatically, instinctually, but not on the basis of collective intentionality (Tomasello 2008);¹⁰ their individualistic participation tends to ensure, nonetheless, the survival of the group through time without their ever having to think about how to safeguard that survival. Their sociality is genetic, not symbolic. However, the participation of individual hominins in non-instinctual rituals would be impossible absent instruction and guidance by PFS-enabled conspecifics attempting to operationalize collective intentionality. The efforts of the PFS-enabled “leaders” would have no doubt been aided by mimesis, though the leaders could not have known this.

In one of his attempts to explicate how the scapegoat mechanism works, Girard (2008, 119) indeed gives it a theological spin, explaining that the group must have thought “a god came down to teach them that killing the right victim reconciles the community,” clarifying that, “[w]hen I say ‘god,’ I mean a sacred force that is believed to be outside the community.” *A sacred force believed to be outside the community*, with the community itself already self-conscious and one-minded, strikes me as overly fanciful given that there is no reason to believe the whole group would have been able to have such a conceptualization. Much more plausible, I think, is an apprehension of the group as an amorphous but all-powerful agent transubstantiating the chaos into calm. This apprehension, based on limited PFS ability, would only have been had by as few as two of the population. We, as observers, can conceptualize the two relating to this agent as something that might be described as a sacred force insofar as its appearance was unprecedented and therefore resistant to their understanding or conceptualization (these abilities were very much “in development”). The agent would have elicited something like veneration and even awe, for it would have been in fact quite difficult to convoke and constitute—but undeniably powerful and satisfying when the attempt was successful.

What happened can be imagined: the two children with late prefrontal cortex development—Remus and Romulus in Vyshedskiy’s hypothesis—interacted during their early years, simultaneously inventing the recursive elements of language and acquiring recursive-dialog-dependent PFS. In so doing, each child

would have been able to, as none of their contemporaries could, conceptualize a self-sense and “a sense of the other as a candidate for cooperative agency . . . as actual or potential members of a cooperative activity” (Searle 1990, 414), which the very operations of recursive language and collective intentionality require and which PFS made possible. This means that each one would have developed a sense of themselves as part of an unprecedented and almost limitlessly powerful entity: a “we,” an “us,” a first-person plural that is both the subject and object of remembered past events (“we did things,” “things happened to us.”) Each individual could now be a part of a first-person plural entity that could foresee and plan for new processes and events. Such an entity, able to think things that simply did not exist prior to being thought, and which as an agent only really exists through the recursive language and voluntary imagination made possible by PFS, would most momentously have made its appearance when it stopped the mimetic violence of all against all by getting ahead of the natural process, by acting *out of time* in some sense, arranging and thus accelerating the cooperation of all against one.¹¹ The novelty of the first-person plural must be appreciated; it was a fey thing, somewhat unworldly, somehow supernatural—not banal or pedestrian by any means.

To put it another way, the two mutant child protagonists, having fortuitously survived a number of mimetic cycles, were to able remember (see again) the solution to the crisis, to see perhaps with what Tomasello (2008, 179) calls a “bird’s eye view” the different individuals playing different roles; then, during one momentous iteration of the process, they must have been able see themselves and others as something like at least potential cooperators constituting an unprecedented agency capable of solving the problem and urged proximate conspecifics to collaborate in enacting that solution *now* rather than wait for nature to take its course.¹² Vyshedskiy speculates about how early hominins, not yet equipped with PFS, might interact with the world. He does this by describing modern people just like us who have, unfortunately, suffered neurological damage that incapacitated their ability to engage in PFS. They are so much like us that “their disability shows only when [they] have to imagine several objects or persons in a novel combination (revealing the problem of PFS)” (Vyshedskiy 2022a, 20), because they cannot do it. It can be imagined then that some and even most members of the hominin population in question, those without PFS, would not have been able to apprehend either the first-person plural as such, nor their belonging to it. But what was important, and decisive, was that some could.

Those whom I will call mutants could have *imagined* cooperation—or rather, what should now be construed as the agent of collective intentionality—and on that basis could have attempted to activate the plural first-person in response to events in an effort to manipulate those events, to achieve ends that heretofore had been arrived at by automatic, merely mimetic, coordination.

The course of evolution and the invention of culture, it turns out, depended not on autonomous individuals in the sense of individual subjects but on individuals nonetheless: individual *organisms* endowed with mutations that gave them survival and reproductive advantage (fitness) within what still must be conceived of as something like natural populations. Quoting and paraphrasing Vyshedskiy (2019a, 16) from a slightly different context, though with an obvious relevance for this one: the “process must have been pre-planned by [one or two] and then explained to all” the rest, one way or the other. In this way, despite most or even the rest of the group being as yet underdeveloped with regard to PFS, “both the [individual mutant] and the tribe [the population] would have gained an advantage” (Vyshedskiy 2022, 11)—but the population’s advantage is unthinkable without the mutants’. The physiological mutation subtending PFS, recursive language, and collective intentionality would have given the two mutants reproductive advantage within the population, resulting in the spread of PFS, recursive language, and collective intentionality within the population. This would then have given this population reproductive advantage vis-a-vis other populations, insofar as it could operationalize collective intentionality and act for itself, while other similar populations were stuck in genetically structured natural cycles of coordinated but not cooperative behavior that imposed something like a natural limit on their flourishing.

A Cult of the Victim, or Transcendence?

Here I arrive at what I think is the most substantial break with Girard’s scapegoat-centric vision, in which the victim is divinized. My account is speculative but nonetheless plausible, based on the explanation of ritualization offered thus far. In the vision I am sketching out here, based on PFS and collective intentionality, I argue that the plural first-person is divinized. If each body can cooperate in just the right way with every other body in the population, the result is an agential entity, unprecedented in the experience of each body and constitutive of a new experience for each one: being subjectively part of something that is subjectively experienced as greater than each individual self. It is a collective force that *is* us (because it is based *on* us), but it is also *beyond* us; it is not us, because though it can be visualized in the mind of each (assuming PFS), it is in fact beyond any single organism’s control. Nonetheless, if all goes well, it is capable of delivering each one of us from perdition. Is this not, in fact, how “we” relate to the gods of which we conceive?¹³ They are all powerful but always beyond control, always mysterious in their workings and ways, capricious even; ours, us, but not ours, beyond us. Such entities, these deities, are manifest in the cooperation itself, which in the very process of cohering banishes, defeats, the chaotic terror of the mimetic crisis and its relations. This being the case, I argue that this cooperativity itself is the key for understanding the religious nature

of hominization; it is what makes human *being*, heretofore at least, essentially religious, because it is the very object of human *being*—subjective togetherness, oneness through conscious collective intentionality. In a word, I am talking about transcendence.

The rupture I am suggesting shifts focus here to what Girard (1987, 101) calls the “hallucinatory paroxysm of the mimetic crisis” as constituting itself the resolution of the mimetic crisis. The crisis is resolved *in actu* in the reconciliatory coordination and not post facto in the aftermath of the killing that results from it. In other words, it is the ecstatic cooperation (transcendence) as such, rather than its alleged telos (a killing, a victim), that generates the bonds and bliss that Girard specifies as the immediate, uniform, and homogenous upshot of the killing. Indeed, I am not convinced that killings as such ever gave way to the celebrations and joy Girard ascribes to them. I cannot see why they would.

If the mutants successfully engage conspecifics in a joint enterprise, the discord mysteriously troubling the population is immediately replaced by active harmony, which amounts to an evolutionarily preferred non-threat situation for the individual organisms involved.¹⁴ Reconciliation (a non-threat situation by definition) is already achieved.¹⁵ The agent of such reconciliation is the population, is us, now indeed a community, but only the mutants can “see” this agent due to their novel symbolic capacities. Out of nowhere, something that had not existed before appears: the first-person plural, a collective agent/entity bringing peace. But its appearance has now been explained in evolutionary terms. This unprecedented being is all-encompassing: *it* is the all-powerful entity, the deity I argue, that henceforth commands obedience not from the group *qua* group but from each individual in the group insofar as that individual is understood, and understands themselves, to be part of the “us.”¹⁶ This process of hominization will take place over generations as PFS spreads through the population/community.

Is it not the case that, essentially, coordination (the result now of cooperation, or each person playing their appropriate, pre-scripted role)—harmony, oneness itself—is the point of every ritual, though it has been toned down in the religious rituals of, say, the monotheistic religions? It is certainly still very much the point of things like rock concerts and festivals like Burning Man, of fandom and spectatorship, and it is even part of the recrudescence of Christianity in some of its current forms, wherein the weekly gathering resembles nothing so much as, indeed, a rave. Indeed, for some African cultures, dance is not an instance of mere emotionality or anything similar; it is nothing less than a positive response to the “ontological and epistemological imperative to be in tune” (Ramose 2005, 43). What are all these forms aiming at? They are purposeful rituals whose goal is an experience of transcendence itself. What Emile Durkheim (1915, 424) wrote some time ago is relevant here:

[C]ollective life awakens religious thought when it rises to a certain intensity . . . because it brings about a state of effervescence that alters the conditions of psychic activity. The vital energies become hyper-excited, the passions more intense, the sensations more powerful; there are indeed some that are produced only at this moment. Man does not recognize himself; he feels somehow transformed and in consequence transforms his surroundings. To account for the very particular impressions he receives, he imputes to the things with which he is most directly in contact properties that they do not have, exceptional powers and virtues that the objects of ordinary experience do not possess. In short, upon the real world where profane life is lived, he superimposes another that, in a sense, exists only in his thought, but one to which he ascribes a higher kind of dignity than he ascribes to the real world of profane life. In two respects, then, this other world is an ideal one.

The agent of collective intentionality resides, it might be said, in that other world. The image of a transcendent plural first-person becomes reified and even fetishized. This ideal image will be invoked to shape the behavior of others. Just as today one member of a couple might, amid strife, invoke an early image of effortless coupledness to convince themselves as much as their counterpart to “cooperate” by reminding them of “the way we were,” so might PFS-enabled conspecifics use an image of “the community” in its transcendent splendor to cajole other conspecifics into cooperation based on a memory or understanding of the “the way we were.” Just as all too often the two constituents of the purported couple might have different memories or images of the way they were, and that there might even be disagreement as to whether or to what extent they were, in fact, a couple, so can be imagined that success in some conspecifics convincing other conspecifics to act cooperatively on the basis of an image of their unity, as a collective first-person, took time and was always inconclusive and subject to decay. Nevertheless, is this not what Pericles is doing in his Funeral Oration (Thucydides and Kakridis 1998), wielding an image of “us,” Athens, a plural first-person, to bring together the Athenians (those who would consider themselves interpellated as such) in cooperation, in transcendence, going forward? Indeed, it remains something that we humans are still striving to accomplish on a consistent basis today.¹⁷ (Is this not the implicit logic behind the injunction to make American great again?)

Conclusion: A Scientific Framework for Divinization

The question still to be posed and answered scientifically is the following: What environmental pressure would drive this neurological mutation (the basis of PFS)? Vyshedskiy (2022, 11) posits that “predation from camouflaged motionless felines was driving” it. But our primate cousins seem to have done well enough without PFS in such an environment. Girard’s contextual emphasis

here seems to me spot on: rather than big cats, the real pressure was from conspecifics, most especially at the time of mimetic crises.

The mimetic crisis constitutes a threat to the survival of all the individuals who find themselves caught up in it. As such, it should be remembered that all living organisms have old evolutionarily “defensive survival circuits” (LeDoux 2019, 345) that are constantly alert to threats. When stimulated, these circuits help the individual organism prepare for defense by inducing in the individual organism what LeDoux (2019, 345) calls “an organism-wide physiological state, a global defensive survival state.” Most importantly for the purposes of this article, such a state can “facilitate goal-directed instrumental actions” in mammals with nervous systems that can generate “feelings” based on this state (LeDoux 2019, 345). Humans are exquisitely attuned to such feelings (Damasio 2019), and this is important when the most natural, clear, and present threat for one of us is others of us.

That survival state must have taken hold when the proximal conspecifics (and oneself) descended into mimetic crisis. The pre-cultural mimetic solution to this is known: as discussed previously, through emergent coordination and automated imitation, and without reference to a specific goal, chaotic insecurity coalesced into coordinated security. Survival was assured insofar as every individual organism was doing the same thing and thus no single organism constituted a threat to any other. That one organism from among the population would die from this “solution” was of no concern to any other (unless it were to be made the hinge of one’s theory).

Now, the defensive survival circuits are properties of individual organisms, not of the group as such, and the global survival state refers to the single organism, not to the collective. As LeDoux (2019, 345–46) says, “in organisms that are capable of conscious awareness of their own brain’s activities, the . . . global survival states can . . . influence conscious emotions, which, in turn, can result in deliberative control of . . . behavior.” But he is describing what can happen in individual, not collective, organisms.¹⁸ The individual organism will try to survive, but without PFS is not be able to concern itself with “our” survival or “see” how its survival is in fact tied up with the survival of the others. LeDoux (2019, 352) distinguishes between the “noetic awareness that danger is present” and “autonoetic awareness in which you know that *you* are the one in danger.” To answer the question of what is adaptive about PFS: it confers advantage on the individual by giving the individual a way to see and thus organize safety by organizing cooperation when it *knows* it is in danger; however, it thereby also confers advantage on the population because it minimizes loss of lives by organizing and accelerating the cooperation that ends the mimetic crisis. PFS—voluntary imagination (but unequally distributed)—subtends what LeDoux (2019, 353) describes, allowing for the articulation of imagistic “predictive models (expectations) and scripts (possible courses of

action)” in the minds of these mutants. They can then encourage the other proximal bodies to join in a beating, and if successful, they have *already* resolved the mimetic crisis and experienced that resolution as something like a feeling of transcendence, what would be called the arch religious feeling.¹⁹

Girard believes that the victim, inescapably seen as both the cause of the trouble and something like the bestower of peace, is divinized or sacralized. Alternatively, I argue that something like collective intentionality is what is sacralized, for through it humans are capable of impossible things: returning ourselves to peace, among others. Unconvinced that a primordial aggrupation of hominin could have all together interpreted the “meaning” of the cadaver in what strike me as quite extraordinary ways, I suggest that among such a population, some mutants could apperceive the coordination among conspecifics and assimilate it to the elation felt in or produced or induced by that same coordination. The ability to envision and then organize the re-enactment of that coordination is cooperation (collective intentionality), which depends, as I argue, on PFS. Cooperation inherently and instantly—miraculously, one might say, from the point of view of those involved—resolved the danger, whose source, to be sure, was hardly understood.²⁰ This experience stands in radical contrast to the subjective stress caused by activation of the global survival state. It is an experience of deep affective connection to others outside oneself with whom one somehow forms a unity: it is an experience of transcendence.²¹

A part of the population—not the whole in some miraculous, unanimous fashion—was thus able to conceptualize, roughly, to be sure, something like the first-person plural, the “we” that could, as “we,” end the terrifying violence. “We”—a real but evanescent collective entity, a decidedly new element in and of experience, an inconsistent but undeniably powerful force—could remember and foresee and plan and act (cooperate) and make things safe again. The mutants could have the new and powerful experience of being part of, of being in some real sense one *with*, all those present, which was, again *in actu*, the experience of transubstantiating the terrifying violence through nothing other than transcendence itself.

My hypothesis, finally, is this: the reconciliation is not post facto (after the killing) but *in actu*. It results from the coordination/cooperation whose result is, yes, a killing. But from what, specifically, did reconciliation and safety result? The killing or the acting together? I am insisting that it resulted from the cooperating, from the alignment of the various bodies in one, first spontaneous, now consciously organized, activity. This organized activity resulted from cajoling, inveigling, and somehow involving others on the basis of an image of the entire population conceptualized, again by some, in terms of what should be thought of as an unprecedented first-person plural subject or agent capable of unprecedented things. Ultimately, it is ourselves and not, as Girard claims, the sacrificial victim, that we worship, whether at the dawn of hominization and

primitive religion or amid the bellicose enthusiasms of resurgent nationalisms and populisms today.²²

If cooperation is achieved, *the mimetic crisis is already over*, for now, and that cooperation is experienced as something like transcendence. In *Reading*, Girard (2015, 41) asserts that “human societies are all built around religion.” “Sacrifice,” he then specifies, “is the center of human culture” (Girard 2015, 41). But is religion—the primordial form of human culture—really a question of sacrifice? Is it not, rather, a question of transcendence? I think the latter. I think that the notion of a community, a first-person plural, is at the center of human culture: the image of the group in cooperation, the experience of transcendence in that cooperation.

That our worship of ourselves has tended, empirically, all too often to end in murder (lynchings, international, civil, and class wars, inter-ethnic and -religious violence; even much interpersonal homicide is driven, one could argue, by an image/idol of oneself that demands one kill the victim who insults that image/idol) does not mean that it must always be so. Perhaps one option to reduce this tendency is to see it as but one way, perhaps the predominant way, or an all too easy way, of organizing transcendence. But it is not the only way; our task is to find and promote better ways, if we can. They need not be new ways. Perhaps, as Girard himself advocated, religious belief and practice elaborated in terms of steadfast non-violence would be among them.

Acknowledgments

This manuscript was written with the support of an OSUN sabbatical fellowship, the Universidad de los Andes, and the University of London, SOAS.

Notes

- ¹ René Girard (1923–2015) spent the greater part of his career defending a scientific theory of religion based on natural human mimesis that he developed in the 1970s. Recognition of the importance of his work led to his being invited to become an *immortel* of the famed Académie Française and has inspired the International Association of Scholars of Mimetic Theory; the Colloquium on Violence and Religion, which has its own journal publishing content from Girard's followers, *Contagion. A Journal of Violence, Mimesis and Culture*; the Raven Foundation, which seeks to “to impact communities and individuals with God's healing love and nonviolent theology” (ravenfoundation.org); and *Imitatio*, financed by the Thiel Foundation, which seeks to underwrite applications of mimetic theory to the study of culture.
- ² Girard uses here the notion of “community,” which I find places the cart before the horse. That is, when speaking of precultural humanlike primates, “community” already suggests some degree of cultural reality. But the attempt to explain the emergence of human communities *qua* religious communities cannot itself draw on the notion of community. Thus, though I will reproduce quotations as they were written, my own language will distinguish between populations or aggregates of precultural humanlike primates and what I am trying to explain: the (necessarily religious) communities that emerge from them.
- ³ Here I must thank an anonymous reviewer for pushing me, and helping me, to achieve the appropriate language to characterize the scapegoat mechanism.
- ⁴ Marcia Pally (2020b) discusses the requisite minds, thanks to which *Homo sapiens* can engage in “recursive thinking” and create and participate in a “we-centric [. . .] space” and “shared, collaborative, intentional activities.” Such minds thus explain “why play, theater and *ritual* are humanly possible” (Pally 2020b, 1098; emphasis added). Indeed, I concur wholly with Pally's conclusion that “the playful ability” afforded by our minds “is not a recent add-on to the human repertoire . . . It is foundational to our cognitive, emotional, and social capacities—in short, to what it means to be human” (Pally 2020b, 1104). Such minds and their abilities are indeed what make us human in the first place. The main point of this article is to explain those minds and their abilities, that is, what hominizes us, in evolutionary terms, but also in the terms of mimetic theory insofar as, I argue, it gives us a theory of religion that necessarily marks our very humanity as inescapably religious.
- ⁵ To avoid any confusion, Vyshedskiy's work has no relation to Girard's and at no point touches on the mimetic process. I am bringing them together.
- ⁶ Recall his words: “In the *eyes of the group*, this victim seems to be responsible for the whole trouble; but he is also responsible, through his death, for the reconciliation. Therefore . . . *that victim is at first seen as 'God'* So we have a situation that is *suddenly* one of peace, and *the community rejoices* Very quickly, mimetic rivalry will come back over other objects. Then the *people will remember* that a victim saved them, and *they'll try* to do the same thing again. *They will deliberately choose other victims and kill them collectively* in the hope that this will reconcile *them* again. It does, mimetically; this is the *invention* of ritual sacrifice (Girard 2015, 39–40; emphases added).
- ⁷ Impossible too, according to evolutionary theory in general, since the traits subtending it would be specific, at first, to individual organisms and not spread among the group, awaiting activation by a scapegoat mechanism.
- ⁸ As an aside that cannot be developed or defended here, I might remark that a more appropriate Latinate name for our species might emphasize less our intelligence and more our imagination: *homo imaginans*, for example.
- ⁹ If intra-conspecific violence is not something to be overcome in order for hominization to occur, then Vyshedskiy's full account aligns nicely with Pally's (2020a, 2020b), according to which, if I understand it correctly, early humans were hypercooperative and not particularly violent. It was

only with the age of agriculture, with its sedentary, hierarchical, surplus-producing societies, that human violence became an instrumentally valuable option (for some) and thus a notorious feature of human history.

- ¹⁰ Perhaps this is the appropriate moment to acknowledge that Tomasello has a whole book on hominization, *Becoming Human* (2019), which nonetheless, as far as I can see, fails to engage with PFS and the lateral prefrontal cortex delay as decisive for understanding of this phenomenon. In fact, it only offers “culture” as explanans, without ever explaining *it*. Thus, the book remains engagingly descriptive of the different and tremendously important ways humans are unique with regard to other animals but avoids shedding light on what underwrites this difference.
- ¹¹ Vyshedskiy (2019a), for his part, imagines the appearance of this unprecedented collective agent in an act of hunting that eschewed persistence hunting in favor of setting up a heretofore unthinkable elaborate traps that reduced effort and increased yield.
- ¹² Based on Tomasello and Rakoczy (2003), this can be thought of as something like an *epistemic seeing*, made possible, again, by PFS.
- ¹³ The story of Achan in Joshua 7, in the Old Testament, is revealing here. As the story is told in the Bible, Achan disobeyed God, stealing items of value in the attack on Jericho when God had explicitly told the Israelites to destroy everything they found there. Achan’s failure to cooperate properly brings potential ruin on the community: “Now Israel itself must be destroyed,” God says, for its failure to carry out his plan to the letter. Unless, that is, Israel learns to cooperate better, which also means rooting out, and killing, the one who did not cooperate: Achan. Before “the people of Israel” stone Achan to death, Joshua tells him: “You caused us a lot of trouble. Now the LORD is paying you back with the same kind of trouble” (Joshua 7:25 CEV). The conflation of the Lord and the people of Israel, the community as God, as sacred force, as animated by the sacred force, is exactly what I am trying to explain in the text. The Israelites kill Achan because God demands it—because they themselves demand it. Once he is dead, the Israelites burn Achan’s body. “Then the LORD stopped being angry with Israel” (Joshua 7:26 CEV). And Israel, having dialed in its ability to cooperate, goes on to raze a series of enemies with little to no resistance (because God once more favors it).
- ¹⁴ Here I must reference Pally’s (2020b, 1095–96) particular attention to ritual sacrifice in human development and cooperation as it relates to harmony. She understands Girard to be arguing that “ritual sacrifice” is “one way to dispel . . . social tensions,” and indeed that it is the “foundation of civilization” (Pally 2020b, 1095). But, crucially, she also draws attention to the fact that “ritual sacrifice requires complex cognitive and organizational skills” (Pally 2020b, 1095). This then prompts the following question: “Why did early *H. sapiens* bother to dispel accumulating tensions? Why not have Hobbesian war?” (Pally 2020b, 1095). According to Pally, one cannot invoke as an answer a “certain preference for basic societal harmony” because, for example, “our closest cousins the chimpanzees don’t share it” (Pally 2020b, 1095). The account I am trying to elaborate here does not, however, rely on a preference for societal harmony. Rather, it relies on every organism’s evolved preference for non-threat situations, which can be presupposed according to the theory of evolution as elaborated by theorists of defence mechanisms (Eilam, Izhar, and Mort 2011; Mobbs et al. 2009; Woody and Szechtman 2011). Such a “preference” is not restricted to humans. What is restricted to humans is the ability to imagine and realize complex strategies for safeguarding a non-threat situation or extending it. The ability to do this is, as Pally concludes, what makes us human. My purpose here is to situate that hominization, that becoming human, in the religious framework provided by Girard’s theory while correcting Girard’s still metaphysical dependence on the scapegoat mechanism. I am not trying to test Girard’s theory in terms of a transition from hunter gatherer group to sedentary, agricultural groups but make it accord with the evolutionary process in which pre-cultural hominins driven by mimesis to episodic but almost apocalyptic bouts of intra-group violence become cultural human beings who have found a way to manage but not neutralize the tendency to such violence through sacrifice and prohibition (though I do not talk about the latter here). The evolutionary process in question is only possible due to neurological mutations in two conspecifics that made such management imaginable in the first place. I say more about this in the conclusion.

- ¹⁵ In fact, in at least a couple of places, Girard (1987, 26) gives ballast to my argument. For example, “[c]onflictual mimesis . . . creates a *de facto* allegiance against a common enemy, such that the conclusion of the crisis is nothing other than the reconciliation of the community.” Here, is he not saying that coordination results automatically from the mimetic process and thus concludes the crisis? This cannot be dismissed as a slip, something similar is also found later: “In the founding mechanism reconciliation is achieved against and around a victim” (Girard 1987, 102), but not specifically after the victim is dead. The conspecific is not yet dead, and yet the reconciliation has been achieved, Girard says, though he does not follow through. These examples suggest that Girard’s discourse is not immune (and why should it be?) to the aporias that, according to Jacques Derrida (1976), plague all discourses.
- ¹⁶ During the French Revolution, the Abbé de Sieyès (2003, 137) theorized the nation in much these terms: the nation is “a legitimate association, one that is voluntary and free,” but such a nation “cannot alienate or prohibit its right to will and, whatever its will might be, it cannot lose its right to change it as soon as its interests require it.” The nation, in other words, is us, but beyond and above us, somehow autonomous with regard to us; though it only exists through us, it is not us, and we must do its will.
- ¹⁷ Constructing a community for itself takes time. See, for instance, Shlomo Sand (2009) and Edward Thompson (1963).
- ¹⁸ Again, mob or crowd behavior is based on mimesis. After the fact, those involved are often unable to rationally account for what they did. This is why we are so indebted to Girard on this point. The transition to deliberate, essentially rational behavior—“let’s do X to prevent Y”—requires something other than mimesis, which of course does not replace it but surely can eventually account for it and diminish its power.
- ¹⁹ It is of note in this regard that recent experiments with terminal cancer patients who were given doses of psilocybin showed that they had experiences of transcendence that diminished their subsequent stress or dysphoria about their imminent passing. See Griffiths et al. (2016).
- ²⁰ That we humans ourselves are the source is of course one way to understand the elaboration of the idea of original sin, which Girard’s theory of mimesis gives an anthropological twist.
- ²¹ It is temporary, of course. Under the effects of mimesis (which I have not had cause to question), we are soon at each other’s throats again.
- ²² To be clear, I do not think it the case that we worship society à la Emile Durkheim here (although society might well be an object of worship), nor that we worship Ludwig Feuerbach’s God who consists of our own displaced/alienated goodness. It is, to put it another way, our collective intentionality as such, our sense of our own sublimation in something that is bigger than ourselves, to which we are in thrall. I thank an anonymous reviewer for pointing out the need for clarification on this.

References

- Cole, Geoff G., Mark A. Atkinson, Antonia D. C. D’Souza, Timothy N. Welsh, and Paul A. Skarratt. 2018. “Are Goal States Represented during Kinematic Imitation?” *Journal of Experimental Psychology, Human Perception, and Performance* 44 (2): 226–42.
- Damasio, Antonio. 2019. *The Strange Order of Things: Life, Feelings, and the Making of Cultures*. New York: Vintage.
- Derrida, Jacques. 1976. *Of Grammatology*. Baltimore, MD: Johns Hopkins University Press.
- Dunbar, Robin. 2022. *How Religion Evolved and Why It Endures*. London: Penguin UK.
- Durkheim, Emile. 1915. *The Elementary Forms of Religious Life*. London: George Allen & Unwin, Ltd.
- Eilam, David, Roy Izhar, and Joel Mort. 2011. “Threat Detection: Behavioral Practices in Animals and Humans.” *Neuroscience & Biobehavioral Reviews* 35 (4): 999–1006. DOI: [10.1016/j.neubiorev.2010.08.002](https://doi.org/10.1016/j.neubiorev.2010.08.002), 999.
- Farkas, Illés, Dirk Helbing, and Tamás Vicsek. 2002. “Mexican Waves in an Excitable Medium.” *Nature* 419:131–32.

- . 2003. “Human Waves in Stadiums.” *Physica A: Statistical Mechanics and Its Applications* 330 (1): 18–24.
- Gilbert, Margaret. 1990. “Walking Together: A Paradigmatic Social Phenomenon.” *Midwest Studies in Philosophy* 15 (1): 1–14.
- Girard, René. 1977. *Violence and the Sacred*. Baltimore, MD: Johns Hopkins University Press.
- . 1987. *Things Hidden since the Foundation of the World*. Stanford: Stanford University Press.
- . 2008. *Evolution and Conversion*. New York: Continuum International Publishing.
- . 2015. *Reading the Bible with René Girard*. Lancaster, PA: JDL Press.
- Griffiths, Roland R., Matthew W. Johnson, Michael A. Carducci, Annie Umbricht, William A. Richards, Brian D. Richards, Mary P. Cosimano, and Margaret A. Klinedinst. 2016. “Psilocybin Produces Substantial and Sustained Decreases in Depression and Anxiety in Patients with Life-Threatening Cancer: A Randomized Double-Blind Trial.” *Journal of Psychopharmacology* 30 (12): 118–97. PMID: 27909165; PMCID: PMC5367557. DOI: [10.1177/0269881116675513](https://doi.org/10.1177/0269881116675513).
- Heyes, Cecilia. 2011. “Automatic Imitation.” *Psychological Bulletin* 137 (3): 463–83.
- Kaufmann, Angelica. 2012. “Collective Intentionality: A Human—Not a Monkey—Business.” *Phenomenology and Mind* 2:98–105.
- Knoblich, Günther, Stephen Butterfill, and Natalie Sebanz. 2011. “Psychological Research on Joint Action: Theory and Data.” In *The Psychology of Learning and Motivation*, edited by Brian Ross. Cambridge, MA: Elsevier Academic Press.
- LeDoux, Joseph. 2019. *The Deep History of Ourselves: The Four-Billion Year Story of How We Got Conscious Brains*. New York: Viking.
- Makowski, Piotr Tomasz. 2020. “Shared Intentionality and Automatic Imitation: The Case of La Ola.” *Philosophy of the Social Sciences* 50 (5): 465–92.
- Mobbs, Dean, Jennifer L. Marchant, Demis Hassabis, Ben Seymour, Geoffrey Tan, Marcus Gray, Predrag Petrovic, Raymond J. Dolan, and Christopher D. Frith. “From Threat to Fear: The Neural Organization of Defensive Fear Systems in Humans.” *The Journal of Neuroscience* 29 (39): 12236–43. DOI: <https://doi.org/10.1523/JNEUROSCI.2378-09.2009>.
- Pally, Marcia. 2020a. “Philosophical Questions and Biological Findings, Part I: Human Cooperativity, Competition, and Aggression.” *Zygon: Journal of Religion and Science* 55 (4): 1058–89.
- . 2020b. “Philosophical Questions and Biological Findings, Part II: Play, Art, Ritual and Ritual Sacrifice.” *Zygon: Journal of Religion and Science* 55 (4): 1090–106.
- Passos, Pedro, Keith Davids, and Jia Y. Chow, eds. 2016. *Interpersonal Coordination and Performance in Social Systems*. New York: Routledge.
- Rakoczy, Hannes, and Michael Tomasello. 2007. “The Ontogeny of Social Ontology: Steps to a Shared Intentionality and Status Functions.” In *Intentional Acts and Institutional Facts*, edited by S. L. Tsohatzidis. Dordrecht, Netherlands: Springer.
- Ramose, Mogobe B. 2005. *African Philosophy through Ubuntu*. Harare, Zimbabwe: Mond Books.
- Sand, Shlomo. 2009. *The Invention of the Jewish People*. London: Verso.
- Schmid, Hans B. 2011. “The Idiocy of Strategic Reasoning.” *Analyse & Kritik* 31 (1): 35–56.
- Searle, John. R. 1990. “Collective Intentions and Actions.” In *Intentions in Communication*, edited by Philip R. Cohen, Jerry Morgan, and Martha E. Pollack. Cambridge, MA: MIT Press.
- . 2010. *Making the Social World: The Structure of Human Civilization*. Oxford: Oxford University Press.
- Sieyès, Emmanuel J. 2003. *Political Writings*. Edited by Michael Sonenscher. Cambridge: Hackett Pub.
- Thompson, Edward P. 1963. *The Making of the English Working Class*. London: Victor Gollancz Ltd.
- Thucydides, and Fanis I. Kakridis. 1998. *Pericles’ Funeral Oration: Thucydides’ History of the Peloponnesian War. Book II XXXV–XLVI*. Athens, Greece: Hellenic Parliament.
- Tomasello, Michael. 2008. *Origins of Human Communication*. Cambridge, MA: MIT Press.
- . 2019. *Becoming Human: A Theory of Ontogeny*. Cambridge, MA: Harvard University Press.
- Tomasello, Michael, and Hannes Rakoczy. 2003. What Makes Human Cognition Unique? From Individual to Shared to Collective Intentionality. *Mind and Language* 18 (2): 121–47. DOI: <https://doi.org/10.1111/1468-0017.00217>.
- Turner, Stephen P. 2003. “What Do We Mean by ‘We?’” *ProtoSociology* 18:139–62.

- Vyshedskiy, Andrey. 2019a. "Language Evolution to Revolution: The Leap from Rich-Vocabulary Non-Recursive Communication System to Recursive Language 70,000 Years Ago Was Associated with Acquisition of a Novel Component of Imagination, Called Prefrontal Synthesis, Enabled by a Mutation That Slowed down the Prefrontal Cortex Maturation Simultaneously in Two or More Children—the Romulus and Remus Hypothesis." *Research Ideas and Outcomes* 5:e38546. DOI: <https://doi.org/10.3897/rio.5.e38546>.
- . 2019b. "Neuroscience of Imagination and Implications for Human Evolution." *Journal of Current Neurobiology* 10 (2): 89–109. DOI: <https://doi.org/10.31234/osf.io/skxwc>.
- . 2022. "Language Evolution Is Not Limited to Speech Acquisition: A Large Study of Language Development in Children with Language Deficits Highlights the Importance of the Voluntary Imagination Component of Language." *Research Ideas and Outcomes* 8:e86401. DOI: <https://doi.org/10.3897/rio.8.e86401>.
- Vyshedskiy, Andrey, Rohan Venkatesh, Edward Khokhlovich, et al. 2022. "Unsupervised Hierarchical Clustering of 31,000 Autistic Individuals Identifies Three Distinct Groups of Language Comprehension Abilities." Preprint under review. DOI: <https://doi.org/10.21203/rs.3.rs-2277224/v1>.
- Wilson, David Sloane. 2023. "Reintroducing Pierre Teilhard de Chardin to Modern Evolutionary Science." *Religion, Brain, and Behavior* 13 (4): 443–57. DOI: [10.1080/2153599X.2022.2143399](https://doi.org/10.1080/2153599X.2022.2143399).
- Woody, Eric Z., and Henry Szechtman. 2011. "Adaptation to Potential Threat: The Evolution, Neurobiology, and Psychopathology of the Security Motivation System." *Neuroscience & Biobehavioral Reviews* 35 (4): 1019–33. DOI: [10.1016/j.neubiorev.2010.08.003](https://doi.org/10.1016/j.neubiorev.2010.08.003).

