

SUICIDE AND HUMAN SACRIFICE; SACRIFICIAL VICTIM HYPOTHESIS ON THE EVOLUTIONARY ORIGINS OF SUICIDE

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Abstract: Suicide is widespread amongst humans, unique to our species, but difficult to reconcile with natural selection. This paper links the evolutionary origins of suicide to the archaic, but once widespread, practice of human sacrifice, which like suicide, was also unique to humans, and difficult to reconcile with natural selection. It considers potential explanations for the origins of human sacrifice, particularly René Girard's mimetic theory. This states that the emergence in humans of mimetic (imitation) traits which enhanced cooperation would also have undermined social hierarchies, and therefore an additional method of curtailing conspecific conflict must have emerged contemporaneously with the emergence of our cooperative traits. Girard proposed the scapegoat mechanism, whereby group unity was spontaneously restored by the unanimous blaming and killing of single victims, with subsequent crises defused and social cohesion maintained by the ritualistic repetition of such killings. Thus, rather than homicide being the product of religion, he claimed that religion was the product of homicide. This paper proposes that suicidality is the modern expression of traits which emerged in the ancestral environment of evolutionary adaptedness as a willingness on the part of some individuals, in certain circumstances, to be sacrificial victims, thereby being adaptive by facilitating ritualistic killings, reinforcing religious paradigms, and inhibiting the outbreak of more lethal conflicts. Using Hamilton's rule of inclusive fitness, it is argued that risk factors for suicide can be understood in terms of victim selection and social circumstances, which would have maximised inclusive fitness.


Keywords: *Altruism, Evolution, Girard, Hominisation, Mimetic Theory, Sacrifice, Suicide*

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Suicide is a well-studied phenomenon (O' Connor & Pirkis, 2016; Wasserman, 2016) but the evolutionary origins of this costly behavioural trait are not clear (Aubin et al., 2013).

Notwithstanding some animal examples of dubious comparability (Crawley et al., 1985), suicide would

seem to be unique to humans. Although there is considerable variance in incidence (Sinyor et al., 2017), the phenomenon is common to all races (Bertolote & Fleischmann, 2015). That is, the vulnerability to suicide is ubiquitous amongst humans, but unique to our species. This suggests that the propensity to engage in suicidal behaviour emerged during the process of hominisation.

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What factors in the ancestral environment of evolutionary adaptedness (EEA) (Bowlby, 1969) might have favoured its' emergence? Most research in the life sciences concentrates on proximate explanations for observed phenomena, whereas evolutionary approaches focus on distal, or ultimate causes (Tinbergen, 1963). Taking such an evolutionary approach may help to provide a better understanding of complex phenomena such as suicide (Abed & St John-Smith, 2016).

Several evolutionary hypotheses have been advanced, including suggestions that suicide may be a high-risk help seeking strategy (Watson & Andrews, 2002; Syme et al., 2016), as well as proposals that it can be understood as a form of altruism (DeCatanzaro, 1991).

Help seeking may indeed describe how some suicidal behaviours function today, and because such a function relies on an ability to discern the intentionality of others, this might account for why suicide should be confined to humans and not occur in other primates. However, although this may explain much non-lethal suicidal behaviour and some completed suicides, it does not seem to account for most completed suicide scenarios.

Hypotheses involving altruism are also plausible, not least because there are many examples of altruism elsewhere in human behaviours (Kurzban et al., 2015) and examples of self-sacrifice are ubiquitous amongst eusocial species (Joiner et al., 2016). Yet altruism implies fitness benefits for others, whereas in the case of suicide it is not obvious what such benefits might have been. One altruism hypothesis suggests that suicide emerged as a means by which the more burdensome members of a society removed themselves (De Catanzaro, 1991). However, as suicide is commonly associated with a distorted self-perception of burdensomeness (Roose et al., 1983; Van Orden et al., 2006), it is not clear how an adaptation could have functioned by removing burdensome individuals when mediated by an inaccurate assessment of actual burdensomeness.

This paper argues that there are several parallels between the modern phenomenon of suicide and the archaic phenomenon of human sacrifice, which was practiced extensively in the ancient world. It proposes that both phenomena are manifestations of the same evolutionary adaptation. It argues that human sacrifice was likely to have been an adaptation to the social environment of the EEA, and that an understanding of how it was adaptive might inform our understanding of suicidal behaviours today.

In considering the possible adaptive value and evolutionary origins of human sacrifice, this paper draws, in particular, on the ideas of the innovative

French intellectual René Girard (1923 -2015), who suggested that scapegoating and human sacrifice were important evolutionary adaptations which allowed complex human social life to emerge whilst maintaining social cohesion (Girard et al, 1978).

Human Sacrifice in Premodern Societies

Although anathema to modern society, and to the major religions which have emerged in recent millennia, there is evidence that ritualistic human sacrifice was widely practiced by ancient communities (Bremmer, 2007). Some of the more detailed and graphic accounts were documented by European explorers to the "new world" (Law, 1985; Graulich, 2000), but there is also ample evidence of the practice throughout the "old world", in Asia as well as in Europe (Hughes, 1991; Bates, 2006). Such a wide geographical distribution suggests that the practice was not the result of local or recent cultural aberrations, but rather the product of a behavioural tendency common to all humans.

How might such a seemingly costly trait be understood in terms of evolutionary adaptation? Explaining the evolutionary origins of human sacrifice may appear to be an even greater challenge than explaining the origins of suicide, and may not, at first, seem a promising area of enquiry for evolutionary suicidology. Yet both phenomena, suicide and human sacrifice, have much in common. Both are unique to humans, both are, or in the case of human sacrifice once were, widespread and common to all races, and both are difficult to reconcile with natural selection because they involve a high cost in terms of lives of seemingly healthy individuals. It therefore seems plausible that understanding the origins of the more archaic practice of human sacrifice may help our understanding of the modern phenomenon of suicide.

Hypotheses on the Origins of Human Sacrifice

Several hypotheses concerning possible adaptive functions of human sacrifice have been advanced. Some have been functionalist, such as the protein deficiency hypothesis (Harner, 1977), which claimed that it was, in effect, socially sanctioned cannibalism practiced at times of food scarcity. However, there is little evidence to support this (Price, 1978; Acevedo & Thompson, 2013).

Other approaches, such as the social control hypothesis (Winkelman, 2014), suggest that the practice had a more political role, a view supported by evidence of a link between human sacrifice and greater social stratification (Watts et al., 2016), with the suggestion that it may have functioned by

maintaining social order through intimidation. It has also been suggested that societies may have been more inclined to resort to human sacrifice at times of crisis (Bauer et al., 2016)

The practice was seemingly linked to religion, which is thought to have been adaptive by enhancing group cohesion (Dunbar, 2014). Cognitivist hypotheses claim that religious beliefs emerged as by-products of traits such as our tendency to ascribe agency and to attend more to minimally counterintuitive concepts, rather than to intuitive or maximally counterintuitive ones (Atran & Henrich, 2010). Public displays of costly commitment to a belief system may have enhanced intergenerational cultural transmission (Atran & Norenzayan, 2004). Although this might account for the emergence and transmission of many facets of religious belief, it seems doubtful that it can account for the widespread, and seemingly independent emergence of the arguably maximally counterintuitive notion of human sacrifice.

A criticism of the cognitivist account of religion is the emphasis on individual beliefs, rather than the communal ritualistic nature of the phenomenon (Stark, 1996), which suggests that religion, and human sacrifice, may be better thought of as cultural practices. This is supported by a cross cultural analysis (Acevedo & Thompson, 2013) which indicated a negative association between human sacrificial practices and a belief in spirit aggression, an observation which would seem to cast doubt on the commonly held assumption that human sacrifice was motivated by a perceived need to appease angry deities (Pinker, 2011).

Regardless of whether human sacrifice is better understood as having been a communal group activity, or as motivated by belief, it is clearly not a necessary requirement for a functioning community, as many human societies, including, arguably, most modern societies, manage to enjoy the cohesive benefits of shared beliefs and values without routinely sacrificing one of their members. Hence, if less costly options are possible, how and why did the practice of human sacrifice emerge? One possibility is that rather than homicide having been the product of certain types of rituals or belief systems, instead it was the human propensity to have rituals and belief systems which was the product of certain types of homicide. This was the view of René Girard, who argued that spontaneous scapegoating, subsequently replicated by ritual human sacrifice, had a cathartic unifying effect on early human communities, who would otherwise have exterminated themselves through internecine warfare.

Girard's Mimetic Theory, The Scapegoat Mechanism and Sacrifice

Girard advanced a comprehensive theory of human origins, including the origins of human sacrifice (Girard, 1961; Girard, 1972, Girard et al., 1978; Antonello & Gifford, 2015). He surmised that the most defining human trait is our propensity to unconsciously mimic each other's behaviours *and* desires, with the resultant alignment of the desires of all group members around a single goal, facilitating group efficiency and cultural learning.

Girard's account of human mimicry, or mimesis, has much in common with Tomasello's shared intentionality hypothesis (Tomasello & Carpenter, 2007), which emphasises the uniquely human ability to infer, and reciprocally influence, the mental states, or intentionality, of others. Both Girard and Tomasello, independently of each other, arrived at similar conclusions regarding the importance of this for the emergence of uniquely human characteristics, such as cooperation and cultural learning.

However, their conclusions about the consequences for human society differ. Tomasello emphasises the advantages of cooperation and the cumulative benefits of intergenerational transmission of knowledge and skills (Tennie et al., 2009). Girard acknowledged similar benefits, but also saw a problem, claiming that mimesis (or shared intentionality) would have weakened the social hierarchies which curtail intra-group conflicts in other animals.

If everyone desires the same thing, rivalries become inevitable. The emergence of a mimetic impulse would have undermined the submission to dominant conspecifics upon which the stability of social hierarchies depends (Price, 1967).

Girard argued that mimesis (or shared intentionality), with all its' benefits, could not have emerged without the contemporaneous emergence of another, novel, mechanism for curtailing intragroup conflict. Without this, he argued, early human groups would have faced extinction through the outbreak of uncontrollable internecine violence. The mechanism he proposed was what he called *the scapegoat mechanism*.

This would initially have been a spontaneous process and itself a product of mimesis / shared intentionality. If, during some crisis, when the social hierarchy had broken down, a single individual became the focus of the aggression of a critical number of other group members, then the mimetic dynamic would have tended to cause *all* other members of the group to direct their aggression towards that individual, probably killing them. In doing so, unanimity would have been

generated, and thus group cohesion restored. The “all against all” dynamic, characteristic of the breakdown of the social hierarchy, would have been replaced by “all against one”.

This may have initially resulted in a learnt behaviour of responding to future crises with the previously effective mechanism of killing a single victim. However, according to Girard, the survivors would have misinterpreted events such that, rather than recognising that it had been their own unanimity which had restored order, they would have come to regard it as having been the death of the victim which had done so. Girard called this “misrecognition”, in that the victim would have been posthumously regarded as having been both the cause and the resolution of the crisis, and thus seen as god like. Eventually, this would have taken the form of a belief system, invariably involving the (retrospective) deification of the victim, and a tendency to pre-emptively ward off future crises, regardless of their actual cause, with a ritualistic re-enactment of such killings.

Girard thus envisaged two killing scenarios. An initial killing (or “founding murder”) which would have been a spontaneous response to a crisis, and analogous to what we might now describe as a mob lynching. This would have been so effective at restoring social order as to have spawned misrecognition, mythology, and religious belief systems. There would also have been repeat killings, which had the effect of maintaining social order and pre-emptively averting future conflicts. These would have been more planned and ritualistic, and what we might now recognise as human sacrifice. Although the term “founding murder” might suggest a one-off event establishing an immutable religious practice, and it may be presented as such in mythology, (through the prism of misrecognition), over time the process may have been quite dynamic, and the distinction between initial and repeat killings more blurred. The initial, spontaneous killing would have been the most efficacious, but over several generations the repeat killings or sacrifices may have become increasingly less effective at restoring social cohesion, leading to further mimetic crises and further “founding” murders.

Girard claimed that all religiosity has its’ roots in such homicide, with the sacrifice of animals, of inanimate objects, and the eventual emergence of belief systems ostensibly devoid of sacrificial ritual altogether, all being less costly practices which emerged later.

He regarded religiosity not so much as a propensity to invent gods, but rather as a tendency to deify victims (Girard, 2001). He envisaged the death of a human as being primary to the genesis not only of

religiosity, but also of the concepts of the sacred, and thus, of meaning, of values, and even our urge to perceive purpose to our lives.

Girard noted the parallels between his theory and Freud’s “death instinct” (Freud, 1920), surmising that “*even though Freud does not actually discover the scapegoat mechanism, he comes very close to it*”. (Girard, 1987). Although our cultural adaptability enables humans to find meaning in various ways, Girard’s theory, nevertheless, suggests that we have an intrinsic tendency to find meaning in death, and to associate human corpses with the sacred.

Sacrificial Victim Hypothesis

This paper proposes that human sacrifice was facilitated by the emergence in early humans of a propensity, under certain circumstances, to acquiesce, if not to volunteer, to become sacrificial victims, and that this propensity manifests itself in the modern world as suicidality. Girard’s hypothesis provides a possible explanation for how human sacrifice may have been adaptive, with ritualistic killings playing a role in preventing the outbreak of internecine conflicts which, had they occurred, would have cost even more lives.

When we consider human sacrifice today, we do so from the modern rationalist perspective which regards it as a senseless waste of human life. We also tend to see it from the perspective of the victims, but in doing so we inevitably attribute our modernist perspective to the victims. In the EEA however, it seems reasonable to assume that those who practiced it, did so out of a genuine conviction in the associated belief systems. If the adaptive value of the exercise was the maintenance of communal cohesion, then it would have been important that belief in the appropriateness of the sacrifice was shared unanimously by the entire community, and ideally, even by the victims themselves. In such a context, it is proposed that suicidal ideation emerged as a willingness to become victims, and did so amongst candidates, and in circumstances, which were likely to maximise inclusive fitness.

Inclusive Fitness and Suicide Risk Factors

If, as this hypothesis suggests, human sacrifice and suicide can be understood as manifestations of the same evolutionary adaptation, that adaptation may have functioned in the EEA as a form of altruism, in that it entailed the emergence of behavioural traits in individuals whereby the reproductive fitness of the group was enhanced at the cost of the reproductive opportunities of those individuals. In the EEA those individuals and fellow

group members were likely to have been close relatives.

The concept of *inclusive fitness* (Hamilton, 1964; Bourke, 2011). has been proposed to explain such altruistic behavioural traits. This combines both an individual organism's own reproductive fitness (direct fitness) with that of its' relatives. Hamilton's rule (Hamilton, 1964; Waibel et al. 2011) states that a trait in an organism will be selected if the benefits to relatives outweighs the cost to the individual, expressed as

$$c < rb$$

where c is the cost to the individual, b the benefit to relatives and r the degree of relatedness. A crude prediction of the inclusive fitness model (Haldane, 1990), is that, in theory at least, a trait will be selected even if it costs the life of the individual ($c=1$), if doing so saves the lives ($b=1$) of at least three siblings ($r=0.5$), or nine first cousins ($r=0.125$). Whereas such scenarios may seem improbable, according to Girard's theory they may in fact have been common in the EEA.

If we are to consider suicide as being a modern manifestation of traits which facilitated human sacrifice, then we might expect suicidal behaviour to occur whenever $c < rb$, where;

- c is the fitness cost to the group of the death of such a victim in the EEA,
- b is the fitness benefits which would have accrued to the group had the death been part of a sacrificial ritual in the EEA.
- r is the degree of relatedness between the victim and other members of the group.

Individual Factors

As the costs on the left side of the equation involve the sacrificed individuals, we might expect suicide to be more likely where this cost is minimised, that is, in individuals with lower direct fitness. In most modern societies, males are between 3 and 4 times more likely to die by suicide than are females (Möller-Leimkühler, 2003). In a small hunter gather groups, the number of fertile females would have been of greater importance than the number of males, thus the loss of a male would have been less costly. A higher risk of suicide is also associated with advanced age, chronic illness, and lower social status (Bertolote & Fleischmann, 2015), all of which are likely to have been associated with reduced direct fitness in the EEA. Hamilton's rule (Hamilton, 1964) includes a coefficient of relatedness. In the EEA it is reasonable to assume that most members of a band of hunter gatherers would have been closely related to each other and thus altruistic behaviour towards group members would have had

indistinguishable evolutionary outcomes to behaviour towards kin. There is also evidence that having a larger number of siblings, and thus a high likelihood of relatedness to other members of the group, is associated with increased suicide risk (Riordan et al., 2006).

Environmental Factors

Environmental or social factors are likely to be those which tended to maximise benefits in the EEA. If that benefit was the prevention of internecine conflict, then we might expect suicide to be more likely to occur in response to cues which, in the EEA at least, would have been associated with an imminent breakdown of social cohesion, and thus where a sacrificial ritual was likely to have been preventative. Such cues may have included indicators of a weakening of the shared sacred beliefs by which the group's cohesion was being maintained and this is consistent with the link between suicidality and adversity (Seguin et al., 2007).

Experiences of social exclusion and bullying are linked to suicidality (Roland, 2002). They are also very resonant of scapegoating and thus in the EEA may have occurred as a prelude to either a founding murder or a ritualistic sacrifice.

Also, the frequently reported link between religiosity and low suicide rates (Gearing & Lizardi, 2009), may not only result from under reporting, or a fear of punishment in the afterlife. An alternative explanation may be that where strong religious paradigms exist, and are held with virtual unanimity, such communities are likely to benefit less from human sacrifice.

Mental Illness

There is a strong association between suicide and mental illnesses such as depression and schizophrenia (Brown et al., 2000; Isometsä, 2001; Hawton et al., 2005). Citing this link, it has been argued that suicide ought to be regarded as a derangement of what originally emerged as functional altruistic behaviours (Joiner et al., 2016). In contrast, this hypothesis suggests that in the EEA, in certain circumstance, some homicides were not only adaptive, but critical to group survival. Therefore, rather than regarding suicidality as being a by-product of mental illness, we might instead think of those facets of mental illness associated with suicidality, such as delusions of worthlessness, as having functioned as adaptations which facilitated ritualised homicide.

The social competition hypothesis on the evolutionary origins of depression (Price et al., 1994) claims that much of what are recognised today as features of depression have their origins

in submissive behaviours observable in most animals. Although the Girardian view of human relationships, as outlined above, claims that social hierarchies alone are insufficient to keep the peace, it does not deny that they continue to exist. Rather, it implies that humans rely on two complimentary mechanisms for maintaining social cohesion, the phylogenetically ancient system of submission leading to hierarchy, and a uniquely human system based on scapegoating, sacrifice and religiosity. Therefore, whereas expressing submissive or depressive behaviours might remain an adaptive response to perceived instability in the social order, equally, volunteering for sacrifice, or suicidal behaviour, might also have been adaptive in such circumstance. These two different phenomena, depression and suicidality, may often occur together, not because of any causal link as such, but because in the EEA they were both adaptive responses to the same environmental cues.

Regarding psychosis, the archetypal scapegoat hypothesis (Riordan, 2017), suggests that the selection of founding murder victims was unlikely to have been entirely random, but rather, that schizophrenia emerged as an adaptation which provided communities in crisis with more efficacious scapegoat victims, about whom unanimity was likely to have been quickly established, and who had attributes which increased the likelihood of misrecognition. Although in the case of sacrificial killings the emphasis would have been on reinforcing an existent religious paradigm, rather than establishing a new one, nevertheless the process was likely to have been enhanced by the availability of victims who were already perceived as being imbued with mystical attributes, in communication with deities, or even claiming to be divine. Thus, not only would the sacrifice of schizophrenics have been associated with a low cost, as they tend to have low fecundity and thus low direct fitness (Power et al., 2013), it would also have been associated with greater benefits (in the form of reinforced misrecognition).

Discussion

This paper proposes that the mechanisms which emerged for selecting human sacrificial victims manifest themselves in the modern world as suicidality.

Limitations

Some limitations should be acknowledged. Firstly, as with any evolutionary hypothesis, this paper involves speculation, although this is inevitable as the process of hominisation cannot be tested by

experimental replication, nor does it lend itself to Popperian falsification.

The analysis presented here draws heavily on one specific theory on the origins of human sacrifice, that of René Girard. Girard's ideas have attracted some criticism (Landy, 2012; Merrill, 2017), including from one of his own students, Eric Gans, who placed greater emphasis on the role of symbolic language rather than on cathartic homicide (Gans, 1981). Nevertheless, the central proposition of this hypothesis, that studying the evolutionary origins of human sacrifice may advance our understanding of suicidality, is not dependent on Girard's claims alone, but requires no more than an acceptance of the premise that human sacrifice had an adaptive value in the EEA, whatever that value might have been.

It should also be acknowledged that in practice not all human sacrifice victims were necessarily self-selected. Child sacrifice was widely reported, as was the ritualistic killing of out group members such as prisoners of war. Notwithstanding, these examples of victims seemingly chosen on the basis of their inability to resist or their availability, the most efficacious sacrificial victims were likely to have been adult in-group members, who shared the group's belief system, including a belief in the appropriateness of the choice of victim.

Comparison with Other Hypotheses

19th century sociologist Emile Durkheim described four types of suicide (Durkheim, 1897), egoistic, altruistic, anomic and fatalistic, confining the use of the term "altruistic suicide" to circumstances where an individual had become excessively integrated into a group. According to the hypothesis presented here, most, if not all, suicides can be considered altruistic in the sense that they can be understood using Hamilton's rule (Hamilton, 1964). What Durkheim called egoistic suicides, might be considered to involve a perceived low value of oneself, (perceived low cost), and fatalistic suicide as occurring where there is an inflated value placed on the group (perceived high benefit). Durkheim's anomic suicide could be considered as a response to a specific set of circumstances which might be associated with a breakdown in the social order, that is a weakened sense of the sacred, or, in more secular language, a perceived lack of meaning or purpose. In the EEA, societies lacking such common purpose or common sacred beliefs may have been at greater risk of lethal internal conflict, a risk which, according to Girard, could have been addressed through human sacrifice.

This hypothesis, and the burdensome hypothesis (De Catanzaro, 1991), both invoke altruism, and in

terms of Hamilton's rule, both provide similar explanations for individual risk factors involving costs (c) and relatedness (r). However, they differ regarding postulated benefits to the rest of the group (b) in that this hypothesis regards the avoidance of conflict as being the primary group benefit.

Another comparable hypothesis is that of Whitehouse (Whitehouse, 2018) which invokes the concept of identity fusion to explain extreme self-sacrificial behaviours such as suicide terrorism. This entails an individual having feelings of shared essence with their group which have been forged through shared, causally opaque, life threatening experiences triggering exegetical reflection. Such "terror rituals" have strong echoes of Girard's mimetic crises and misrecognition, and both Whitehouse and this hypothesis link suicidal self-sacrifice with group benefit. They differ however in that in Whitehouse's account the potential group benefits are explicitly perceived by the suicidal protagonist, and invariably occur in the context of a perceived out-group threat. In contrast, in this hypothesis, the emphasis is on the threat of violence from within the in-group, and a heroic self-perception, and conscious appraisal of group benefit, are neither necessary nor characteristic features.

Implications

This hypothesis supports the view that suicide is better understood as resulting from combined individual and societal factors, rather than by a more reductive individualist medical model. It does not regard the association between depression and suicidality as necessarily causative, but rather proposes that both phenomena may have originated as responses to the same environmental cues.

Some caution is required in stating a hypothesis which suggests an adaptive function for suicide in the EEA, in that this may be misconstrued by modern suicidal individuals, reinforcing perceptions of low self-worth and enhancing perceptions of group benefit. A more optimistic

view, however, might suggest that linking suicidality with the now obsolete and disparaged practice of human sacrifice, may have a demystifying effect and potentially help to mitigate suicidal behaviours.

This hypothesis posits a trait being adaptive in the EEA but maladaptive in the modern environment. There are numerous examples of such environmental mismatches (Durisko et al., 2016), such as our propensity to preferentially consume high calorie foods being adaptive in environments of food scarcity but maladaptive in the modern environment of abundance. Such models can help to inform preventative public health measures. Similarly, this hypothesis suggests that a greater understanding of the archaic practice of human sacrifice, and especially of how and why virtually all human societies have abandoned the practice in recent millennia, may be important for suicidology and may help inform future suicide prevention strategies.

Conclusion

This paper suggests that suicide and human sacrifice have a common evolutionary origin, and that meaning, purpose, and values may be inextricably associated in our minds with death. In the modern world, the practice of human sacrifice is virtually non-existent. Not only is it no longer a common feature of any religious rituals, it is condemned by all modern value systems, both religious and secular alike. This lack of controversy might account for it receiving little attention from researchers in sociological or psychological disciplines. Today, when we think of human sacrifice, we tend to dismiss it as a distasteful and incomprehensible facet of primitive cultures, and of little relevance to our efforts at understanding and explaining modern human behaviours. Yet for most of human history it was a widespread practice, more so during times of crisis. Suicidology, which concerns itself with how individuals respond to crises, may benefit from further research into this often forgotten ancestral approach to crisis management.

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