



Is Religion an Adaptation for Inter-Group Conflict?

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EVOLUTION OF RELIGION

THE ADAPTIVE LOGIC OF RELIGIOUS BELIEFS AND BEHAVIOUR

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If religious beliefs and behaviors promoted survival and reproduction in our ancestral past, then they may have been favored by natural selection over human evolutionary history. This would mean that religious beliefs and behaviors are adaptive, and that religion evolved as a natural product of Darwinian selection. The “Evolution of Religion” project is dedicated to exploring this hypothesis using scientific methods from psychology and evolutionary biology.

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Mars



Huitzilopochtli



Tumatauenga



Kukailimoku

Talk Outline

- ▶ Do All Religions Have Gods of War?
- ▶ Unpacking the Question
- ▶ Nasty Behavior Can Be Adaptive
- ▶ Religion in the Evolutionary History of War
- ▶ Religion and Military Effectiveness
- ▶ Examples
- ▶ Case Study
- ▶ The Rise of Irregular Warfare
- ▶ Conclusions



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Do All Religions Have Gods of War?

- ▶ No, however...
- ▶ Common across types of religion
 - ▶ Polytheistic religions—Gods of war
 - ▶ Monotheistic religions—Warrior God
 - ▶ Indigenous religions—Ancestor/spirit involvement
- ▶ Inter-group conflict in multiple elements of religion
 - ▶ Beliefs (in-groups, out-groups, purpose, protection, victory)
 - ▶ Practices (rituals, standards, offerings)
 - ▶ Rules (Just war theory, Islamic law)
- ▶ Common across space and time
 - ▶ Major world religions
 - ▶ Ancient religions
 - ▶ Indigenous religions



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Is **Religion** an Adaptation for Inter-Group Conflict?

- ▶ Not “all of religion”
- ▶ Not “all religions”



Is Religion an **Adaptation** for Inter-Group Conflict?

		Past	
		✓	✗
Present	✓	Adaptive	Exaptive
	✗	Maladaptive	Spandrel



Is Religion an Adaptation for **Inter-Group Conflict**?

- ▶ Inter-group war
- ▶ Inter-group violence
- ▶ Inter-group aggression
- ▶ Inter-group competition



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Evolutionary Theories of Religion

Adaptive	Non-adaptive
Cooperation	War
Solidarity	Terrorism
Health	Anti-scientific, human rights
Coping with loss	Cultural disease



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A History of Inter-Group Conflict

- ▶ Humans experienced high levels of inter-group conflict
 - ▶ Warfare common (Wrangham, Keeley, LeBlanc)
 - ▶ High male death rates
 - ▶ Significant evolutionary selection pressure
 - ▶ Major force in human social organization



Selection Pressures Due to Conflict

- ▶ Adaptations to deal with this problem (Alexander 1987)
 - ▶ Large group sizes (to maintain balance of power)
 - ▶ Group cooperation (to improve effective defense/offense)
 - ▶ **Moralizing gods** (to promote cohesion and avoid splitting)

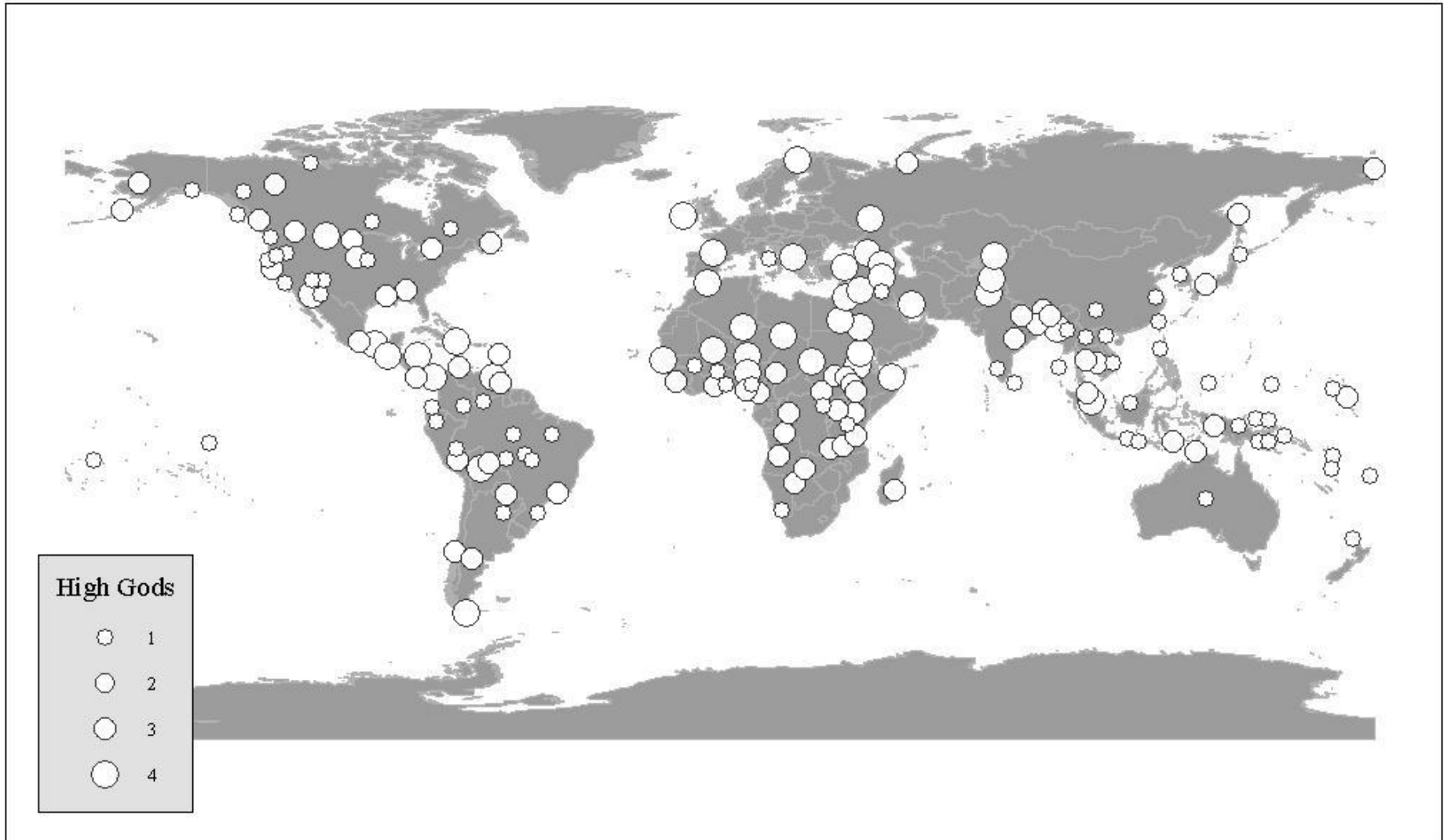


“Dark side” of Cooperation

- ▶ **Cooperation is a double-edged sword**
 - ▶ Within-group cooperation \leftrightarrow between-group conflict
 - ▶ In-group morality \leftrightarrow out-group hostility
- ▶ **Keeley 1996:**
 - ▶ “Warfare is ultimately not a denial of the human capacity for social cooperation, but merely the most destructive expression of it”



Cross-Cultural Evidence



Support for Alexander's Thesis

- ▶ **In-group cooperation (Johnson 2005)**
 - ▶ “Moralizing” Gods significant correlate of cooperation indices:
 - ▶ Norm compliance (in some tests)
 - ▶ Loans and use of abstract money
 - ▶ Central sanctions, police
 - ▶ Payment of taxes
- ▶ **Out-group conflict (Roes & Raymond 2003)**
 - ▶ “Moralizing” gods linked to out-group war (greater threat)
 - ▶ “Moralizing” gods linked to larger societies (better defense)



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Desirable Traits in Warriors

Desirable attributes	Adaptive Problem	Religion's Solution
<ul style="list-style-type: none"> • Strong unit cohesion 	Hard to attain but essential for combat effectiveness	<ul style="list-style-type: none"> • Ritual • Brotherhood
<ul style="list-style-type: none"> • Not afraid of the enemy • Belief that victory is possible 	Overcoming soldiers' fear in battle	<ul style="list-style-type: none"> • Faith, confidence
<ul style="list-style-type: none"> • Belief that performance will be rewarded • Willing to endure great sacrifice • Willing to die if necessary 	Soldiers not willing to fight for an unlimited time, against great odds, or to die	<ul style="list-style-type: none"> • Supernatural punishment for cowardice • Supernatural reward for compliance
<ul style="list-style-type: none"> • Belief that they are fighting for the forces of good • Belief that they are fighting against the forces of evil 	Maintain purpose, sacrifice for the group, hatred for the enemy, willingness to kill; and discourage sympathy for the enemy, defection	<ul style="list-style-type: none"> • In-group out-group rhetoric • Dichotomy of good and evil

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Desirable Traits

Desirable Trait	Role of Religion
Unit cohesion	Ritual
Belief in victory	Faith
Effort and sacrifice	Reward / Punishment
Willingness to kill	Good / Evil

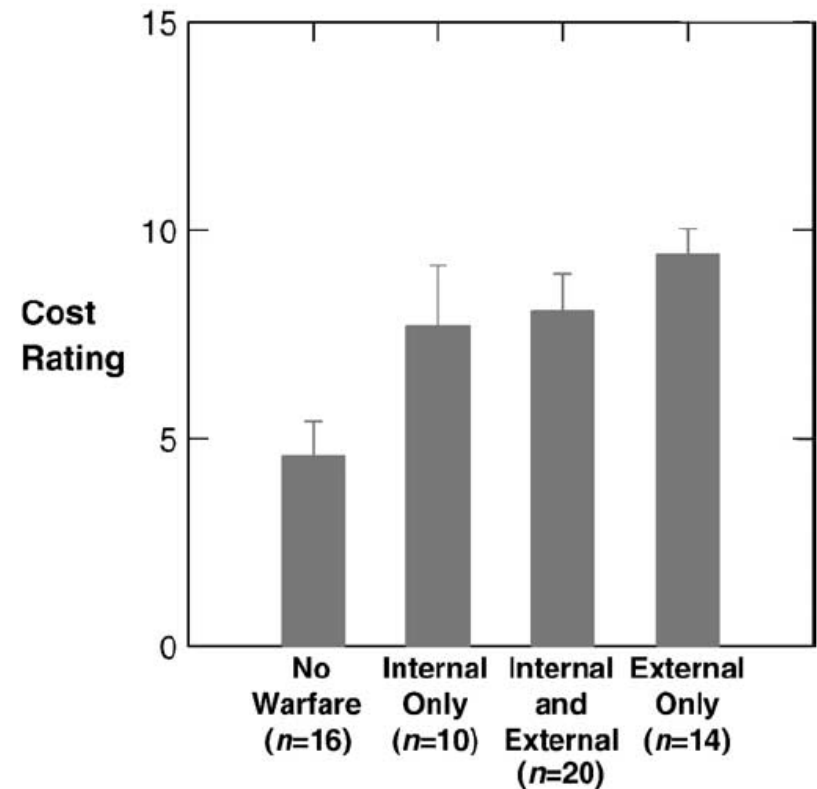
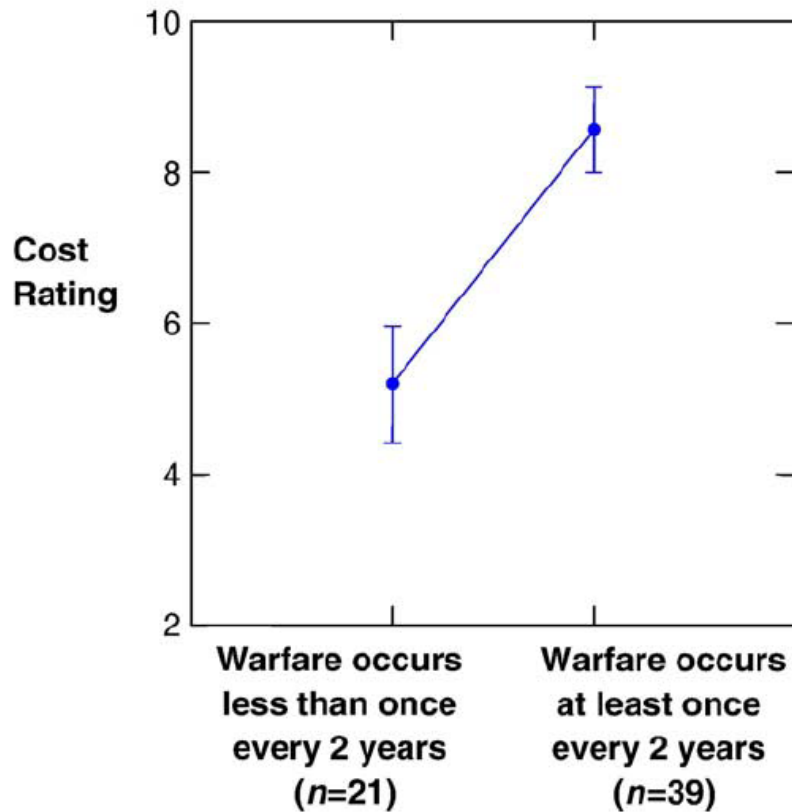


Rituals Promote Collective Action

- ▶ **War is the quintessential collective action problem**
 - ▶ Group may benefit from defense/offense
 - ▶ But individuals better off avoiding risk of fighting
 - ▶ Fighting may pay as long as there is critical mass
- ▶ **Overcoming the collective action problem**
 - ▶ Raising expected benefits over expected costs
 - ▶ Punishment of free-riders
 - ▶ Signals of commitment (prior to war)

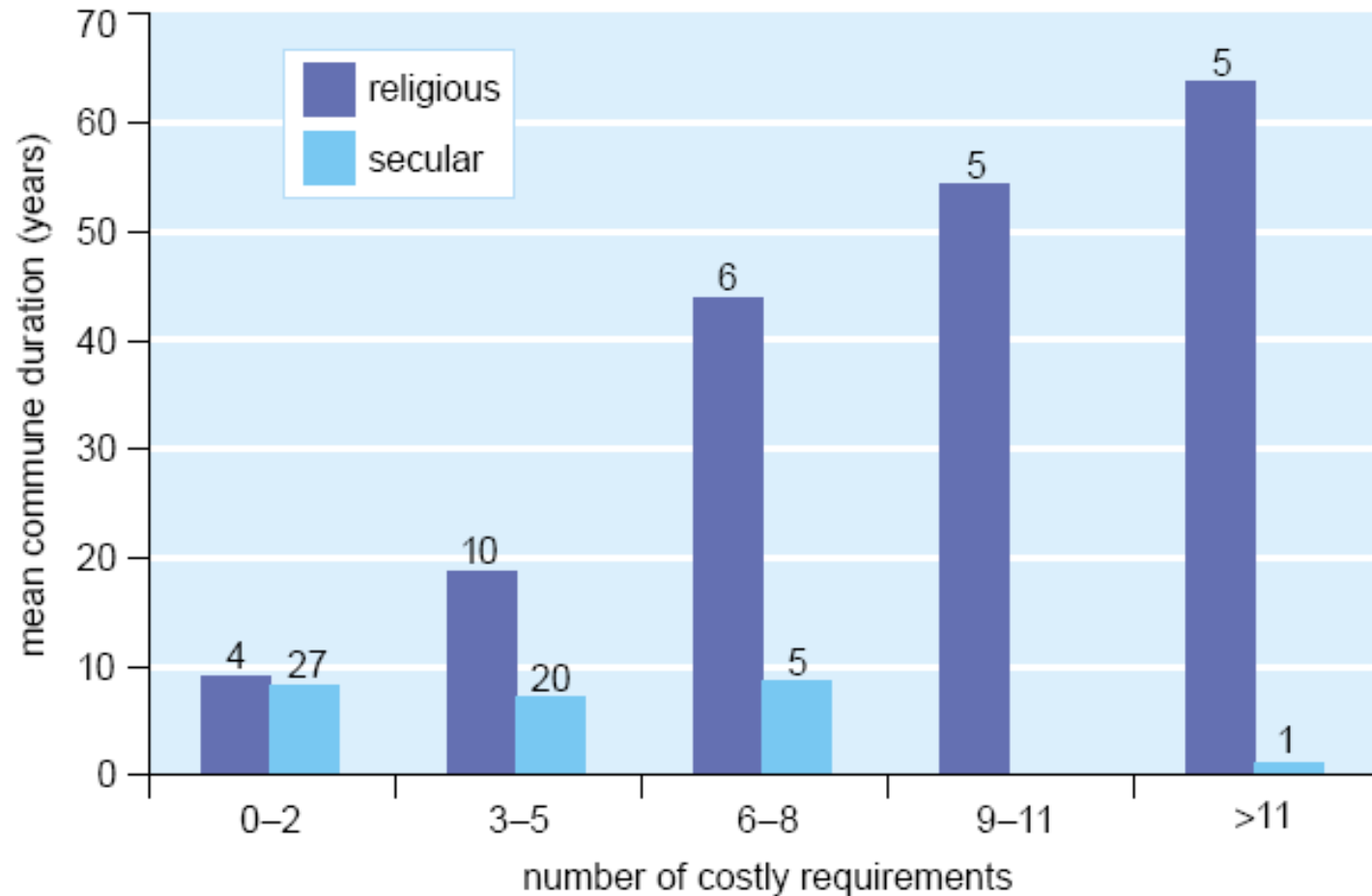


Costly Signals of Commitment



Religion offers powerful commitment mechanisms

Religious rituals more effective



Desirable Traits

Desirable Trait	Role of Religion
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Belief in Victory


ELSEVIER

Is Military Incompetence Adaptive?

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Military engagements are categorized as raids or battles, according to whether one or both sides has the opportunity to assess the other. In raids, assessment appears to be accurate. This means that aggressors experience low costs, which allows violence to be adaptive. A commonly reported reason for battles, by contrast, is a failure of assessment: both opponents hold positive illusions and believe they will win. This article asks why this form of battle incompetence occurs. Explanations in terms of individual anomaly or cognitive constraints appear unsatisfactory. Here, I propose two mechanisms by which positive illusions tend to promote victory. First, according to the Performance Enhancement Hypothesis, they suppress negative thoughts or feelings. This applies to both raids and battles. Second, the Opponent-Deception Hypothesis suggests that positive illusions increase the probability of a successful bluff. This applies only to battles. Military incompetence is proposed to be the result of adaptive strategies of self-deception, which unfortunately promote an increased intensity of violence. © 1999 Elsevier Science Inc.

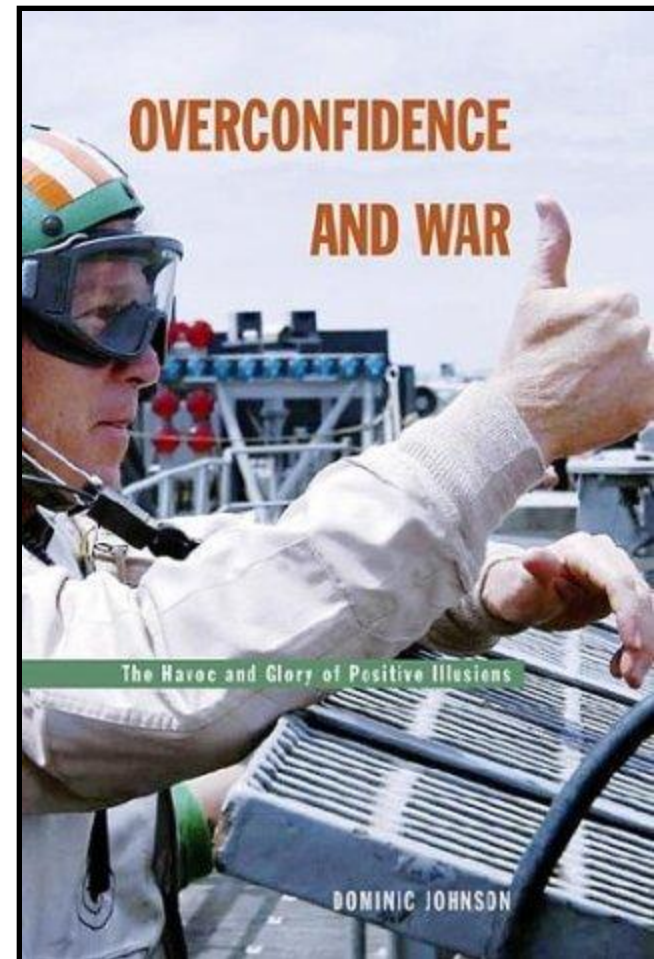
KEY WORDS: Violence; Self-deception; Assessment; Raids; Battles; Military incompetence.

Human warfare consists of two major types of conflict, raids and battles (Keeley 1996). Raids are typical of "primitive war" and are characterized by the victims being unwilling participants. In a battle, on the other hand, both sides willingly engage. In some battles the willingness of both opponents to fight is understandable. For instance, the two opponents may be evenly matched, the weaker opponent may be cornered, or a lost battle may be a cost-effective component of a long-term war strategy. Yet, in many battles, one of the opponents is patently weaker than the other, but still chooses to fight despite

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Desirable Traits

Desirable Trait	Role of Religion
Unit cohesion	Ritual
Belief in victory	Faith
Effort and sacrifice	Reward / Punishment
Willingness to kill	Good / Evil



God Is Watching You

Priming God Concepts Increases Prosocial Behavior in an Anonymous Economic Game

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ABSTRACT—*We present two studies aimed at resolving experimentally whether religion increases prosocial behavior in the anonymous dictator game. Subjects allocated more money to anonymous strangers when God concepts were implicitly activated than when neutral or no concepts were activated. This effect was at least as large as that obtained when concepts associated with secular moral institutions were primed. A trait measure of self-reported religiosity did not seem to be associated with prosocial behavior. We discuss different possible mechanisms that may underlie this effect, focusing on the hypotheses that the religious prime had an ideomotor effect on generosity or that it activated a felt presence of supernatural watchers. We then discuss implications for theories positing religion as a facilitator of the emergence of early large-scale societies of cooperators.*

Sosis and Ruffle (2004) examined levels of generosity in an experimental cooperative pool game in religious and secular kibbutzim in Israel and found higher levels of cooperation in the religious ones, and the highest levels among religious men who engaged in daily communal prayer. Batson and his colleagues (Batson et al., 1989; Batson, Schoenrade, & Ventis, 1993) have shown that although religious people report more explicit willingness to care for others than do nonreligious people, controlled laboratory measures of altruistic behavior often fail to corroborate this difference. Furthermore, when studies demonstrate that helpfulness is higher among more devoted people, this finding is typically better explained by egoistic motives such as seeking praise or avoiding guilt, rather than by higher levels of compassion or by a stronger motivation to benefit other people.

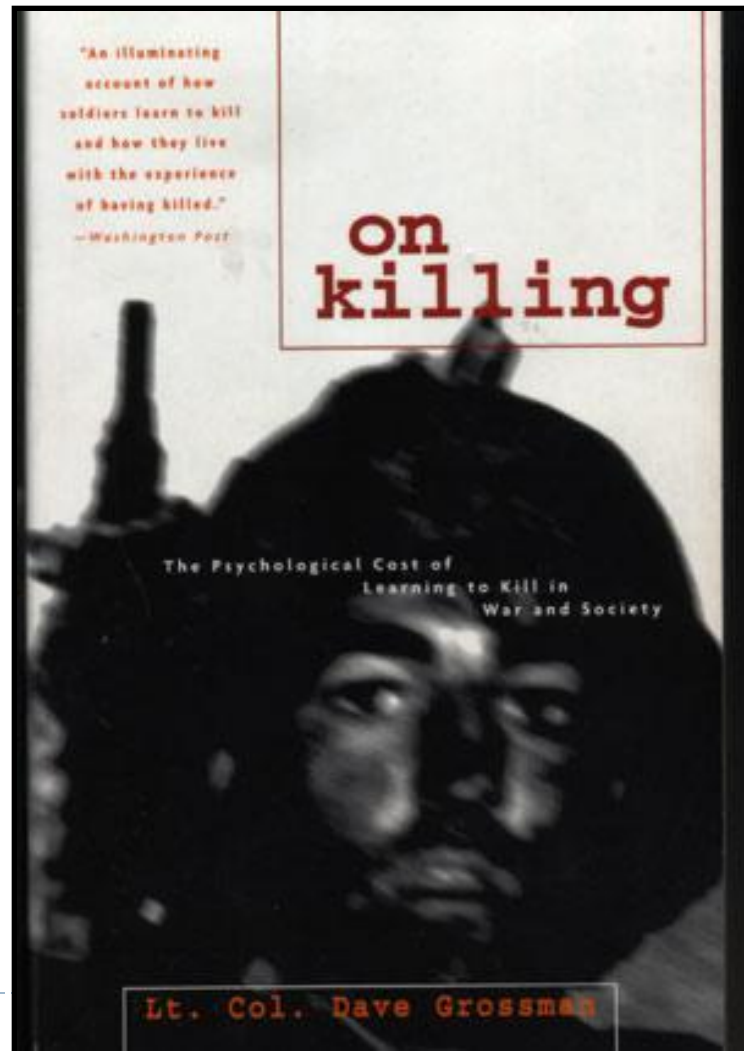
However insightful these findings are, research on religion and prosocial behavior has been limited by its overwhelming

Desirable Traits

Desirable Trait	Role of Religion
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Willingness to Kill or Harm



George Tamarin's Experiment

- ▶ Battle of Jericho (God tells Joshua to kill all inside)
- ▶ Israeli school children (8-14)
- ▶ “Joshua” (N = 1066)
 - ▶ 66% approved
 - ▶ 26% disapproved
- ▶ “General Lin” (N = 168)
 - ▶ 7% approved
 - ▶ 75% disapproved



Research Report

When God Sanctions Killing

Effect of Scriptural Violence on Aggression

Brad J. Bushman,^{1,2} Robert D. Ridge,³ Enny Das,² Colin W. Key,³ and Gregory L. Busath³

¹*Institute for Social Research, University of Michigan;* ²*Department of Communication Science, Vrije Universiteit, Amsterdam, The Netherlands;* and ³*Department of Psychology, Brigham Young University*

ABSTRACT—*Violent people often claim that God sanctions their actions. In two studies, participants read a violent passage said to come from either the Bible or an ancient scroll. For half the participants, the passage said that God sanctioned the violence. Next, participants competed with an ostensible partner on a task in which the winner could blast the loser with loud noise through headphones (the aggression measure). Study 1 involved Brigham Young University students; 99% believed in God and in the Bible. Study 2 involved Vrije Universiteit–Amsterdam students; 50% believed in God, and 27% believed in the Bible. In Study 1, aggression increased when the passage was from the Bible or mentioned God. In Study 2, aggression increased when the passage mentioned God, especially among participants who believed in God and in the Bible. These results suggest that scriptural violence sanctioned by God can increase aggression, especially in believers.*

commit violence in the name of deity (e.g., Juergensmeyer, 2003). One possible reason is that they believe scriptural texts justify aggression. For example, each of the passages just quoted, in isolation and without context, could be interpreted as a justification for violence against unbelievers. Not only are there single injunctions promoting aggression against other individuals in these texts and others, but there are also lengthy depictions of violence against unbelievers in some religious texts.

Research in social psychology confirms that exposure to violent media increases aggression (e.g., Anderson & Bushman, 2002), especially when individuals identify with violent characters (Huesmann & Eron, 1986), and when the violence appears to be justified (i.e., the victims deserved their fate; Berkowitz, 1993). Research on media violence, however, has focused almost exclusively on violent television programs, films, and video games. Written depictions of violence have received far less attention. Yet if it is the case that a reliance on religious canon is part of the inspiration for violence meted out by religious extremists, an

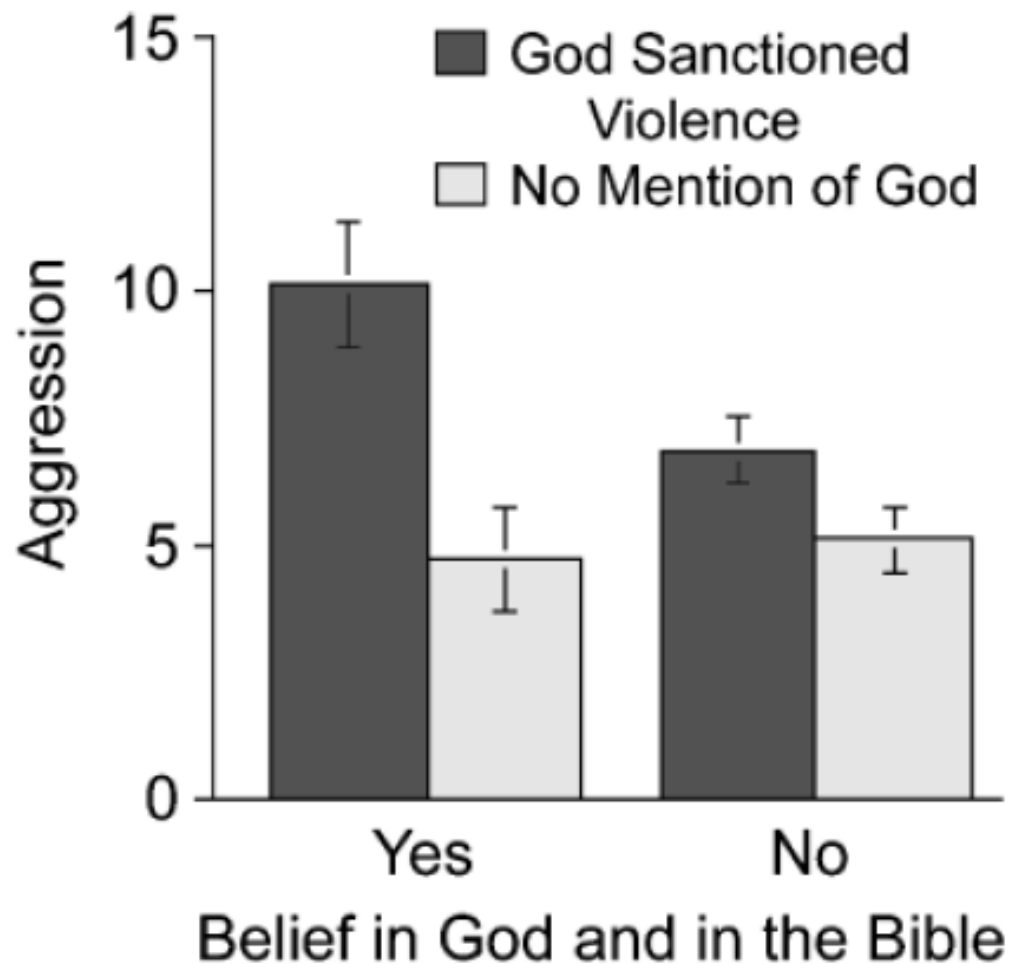


Fig. 1. Effect of belief in God and in the Bible on aggression levels after reading a violent passage in which either God sanctioned the violence or God was not mentioned. The measure of aggression was the number of trials (out of 25) on which participants chose to deliver the highest noise levels (i.e., 9 and 10) to their ostensible partners. Thus, aggression scores could range from 0 to 25. Capped vertical bars denote $\pm 1 SE$.

Evil Other Equates Offense and Defense

Lien (2001) stressed that whether gangs were racist or anti-racist, their moral attitudes were similar: “Because the enemy was thought of as evil and bad, the fight was conceived of as a fight in self defense, even though the ‘enemy’ had not made the first move....”

Wrangham & Wilson 2004

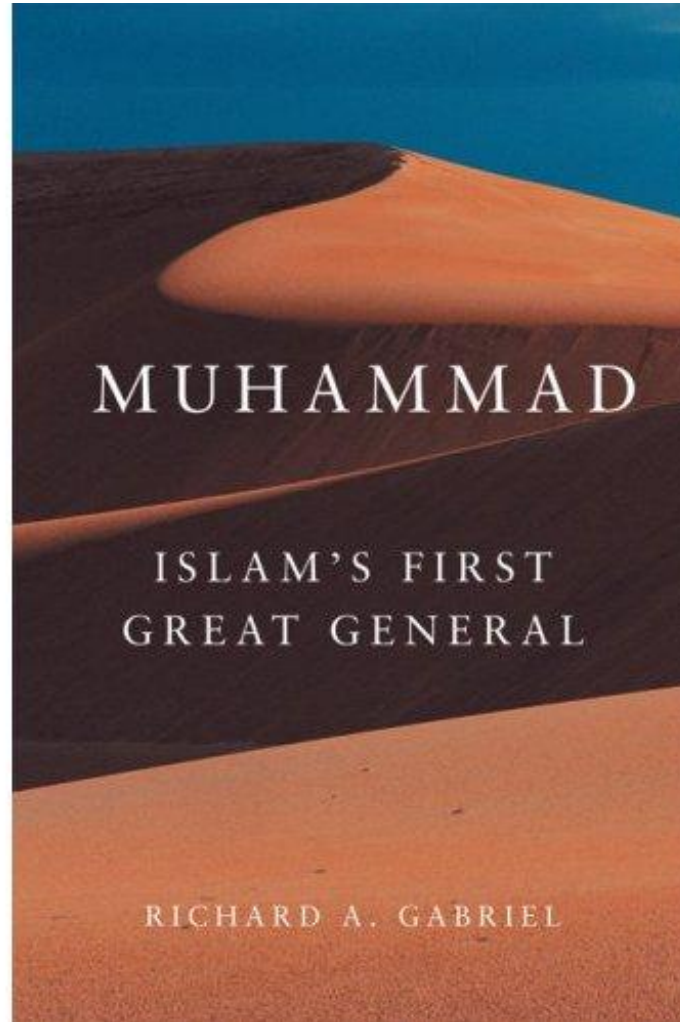


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The Warrior Prophet?



Muhammad, Islam and War

Trait	Religious Solution
Unit cohesion	Ritual / Brotherhood ✓
Belief in victory	Faith ✓
Effort and sacrifice	Reward / Punishment ✓
Willingness to kill	Good / Evil ✓

▶ And leadership (God's messenger)

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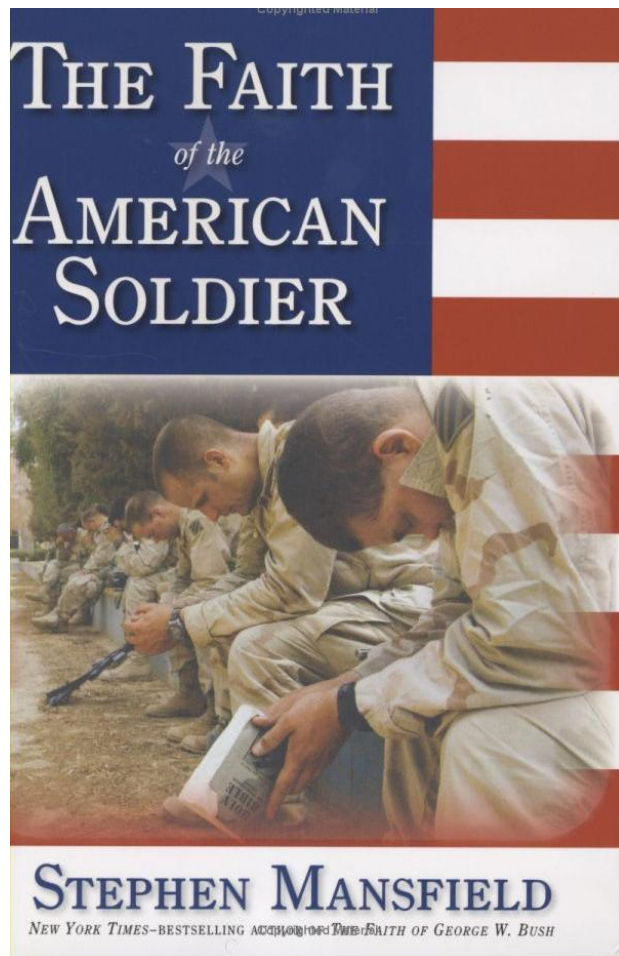
Religion in Irregular War

- ▶ **Even more important in**
 - ▶ Insurgency
 - ▶ Terrorism
- ▶ **Massive imbalance-of-power**
- ▶ **Religion permits an otherwise impossible fight**
 - ▶ Strong cohesion and willingness to participate
 - ▶ Belief in ultimate victory (even if distant/impossible)
 - ▶ Greater cause, salvation, afterlife beliefs
 - ▶ Willingness to kill
 - ▶ War (not victory) as an end in itself

Baghdad 2007



“No Atheists in a Foxhole”



- ▶ Widespread in Iraq
- ▶ Improves
 - ▶ Military effectiveness?
 - ▶ Coping strategies?
- ▶ PTSD at 25%
- ▶ Less PTSD if “right”



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Conclusions

- ▶ Religion may be an adaptation for war
 - ▶ War is the mother of all collective action problems
 - ▶ Did it require a special solution?
- ▶ Compelling adaptive logic
- ▶ Continues to be exploited effectively today
- ▶ Yes: complex, multifaceted, non-exclusive, exceptions
- ▶ **Causes of war**: If religion an adaptation to inter-group conflict, may define when to fight as well as how



Resolves a Paradox?

- ▶ Religion promotes both cooperation and conflict
- ▶ Perfectly consistent once viewed at relevant level
 - ▶ Cooperation is largely within-groups
 - ▶ Conflict is largely between-groups
- ▶ Basis in psychology
 - ▶ Social Identity Theory
 - ▶ People identify heavily with groups (minimal group paradigm)
 - ▶ In-group favoritism
 - ▶ Out-group disfavor
 - ▶ “In-group/out-group bias” explains paradoxical role of religion
- ▶ Origins in evolution
 - ▶ Given our history of war, religion (in addition to other things) promotes in-group cooperation that aids inter-group conflict



“If we were forced to say in one word who God is and in another what the Bible is about, the answer would have to be: God is a warrior, and the Bible is about victory” (Jack MILES 1995)

Related Publications

- ▶ Johnson, D.D.P. & Kruger, O. (2004) The Good of Wrath: Supernatural Punishment and the Evolution of Cooperation. *Political Theology* 5.2, 159-176.
- ▶ Johnson, D.D.P. (2005) God's punishment and public goods: A test of the supernatural punishment hypothesis in 186 world cultures. *Human Nature* 16, 410-446.
- ▶ Johnson, D.D.P. & Bering, J.M. (2006) Hand of God, mind of man: punishment and cognition in the evolution of cooperation. *Evolutionary Psychology* 4, 219-233.
- ▶ Johnson, D.D.P. (2008) Gods of War: The Adaptive Logic of Religious Conflict. In *The Evolution of Religion: Studies, Theories, and Critiques* (ed. J. Bulbulia, R. Sosis, C. Genet, R. Genet, E. Harris & K. Wyman), pp. 111-117. Santa Margarita, CA: Collins Foundation Press.
- ▶ Johnson, D.D.P. (2009) The Error of God: Error Management Theory, Religion, and the Evolution of Cooperation. In *Games, Groups, Norms and Societies* (ed. S.A. Levin): Springer.

