

# Forgiveness as a Vital Sign:

## Positive Epidemiology and the Health of Communities

“Only humans can perform that most unnatural act [of forgiveness] which transcends the relentless law of nature.”

-----Alexander Solzhenitsyn

S. Mark Heim  
Andover Newton Seminary at Yale Divinity School



# The Human Flourishing Program

at Harvard's Institute for Quantitative Social Science

[ABOUT US](#) ▾ [FLOURISHING](#) ▾ [OUR RESEARCH](#) ▾ [COURSES](#) ▾ [EVENTS](#) ▾ [NEWS&MEDIA](#) ▾ [GIVE](#)

[HOME](#) / [EVENTS](#) /

Forgiveness: Interdisciplinary Perspectives (April 20-22, 2023)

**F O R G I V E N E S S**  
INTERDISCIPLINARY PERSPECTIVES



HARVARD UNIVERSITY  
APRIL 20-22

**Cambridge**  
**Elements**  
Religion and Monotheism

## Monotheism and Forgiveness

S. Mark Heim



ISBN 2615-3014 (online)  
ISBN 2615-3006 (print)

# Is Forgiveness a Public Health Issue?

VanderWeele, T.J. (2018). Is forgiveness a public health issue?  
*American Journal of Public Health*, 108:189-190.

- ▶ Forgiveness affects mental, and possibly physical, health
- ▶ In many moral and theological understandings, forgiveness, as a form of love, is also a good itself
- ▶ Forgiveness interventions can alter forgiveness and decrease anxiety and depression, and increase hope
- ▶ Because being wronged is common, and because the effects of forgiveness on health are substantial, forgiveness should be viewed as a phenomenon that is not only of moral, theological, and relational significance but of public health importance also<sup>35</sup>



# The Human Flourishing Program

at Harvard's Institute for Quantitative Social Science

[ABOUT US](#) ▾ [FLOURISHING](#) ▾ [OUR RESEARCH](#) ▾ [COURSES](#) [EVENTS](#) ▾ [NEWS&MEDIA](#) ▾ [GIVE](#)

[HOME](#) / [EVENTS](#) /

Forgiveness: Interdisciplinary Perspectives (April 20-22, 2023)

F O R G I V E N E S S  
INTERDISCIPLINARY PERSPECTIVES

The study, a randomized controlled trial, had 4,598 participants—more than all previous research on forgiveness interventions combined. Trial participants came from Hong Kong, Indonesia, Ukraine, Colombia, and South Africa, countries that have all faced civil conflict or unrest in the recent past. Individuals who received the workbook saw an increased ability and disposition to forgive, a reduction in depression and anxiety symptoms, and an increase in flourishing compared to those with delayed receipt of the workbook.



# Outline

1. Introduction
2. Forgiveness in the Human Story  
The strange reality of Eusociality
3. Altruism and Cooperation
4. The Excess of Universal Forgiveness

# Forgiveness

## Something Related to Individuals

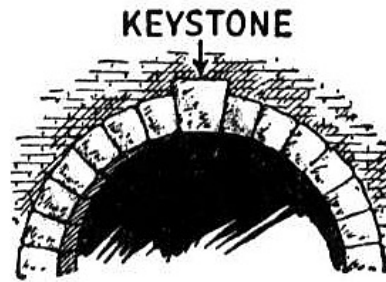
Forgiveness: A victim's reducing negative thoughts, emotions, intentions, and behaviors and replacing these with positive thoughts, emotions, intentions and behaviors towards the offender (cf. Worthington et al. 2005, 2013; North, 1987; Stump, 2006)

Trait forgiveness: Degree to which a person tends to forgive across time and situations

State forgiveness: Person's forgiveness of a specific offense

Forgiveness differs from condoning, forbearing, reconciling, forgetting, justifying, not demanding justice, excusing (cf. Worthington et al. 2005, 2013; North, 1987; Stump, 2006)

# Forgiveness and hominization as an aspect of the cognitive and evolutionary study of religion



## Social Role of Religion

How did humans make the move from living in small kin/clan groups  
to the large communities that are typically human?

# Forgiveness: Its Effects in Relation to Groups

## The Social Life of Religion

Key question is the relation of religion to  
interhuman cooperation and group life

More narrowly the question of altruism

Or---to use more religious language—  
forgiveness and sacrifice.



A Garden of Eden story....but not a fall into evil  
rather a fall “up” into cooperation and extended connection

## Eusociality

Rare and momentous

The Eusocial Insects

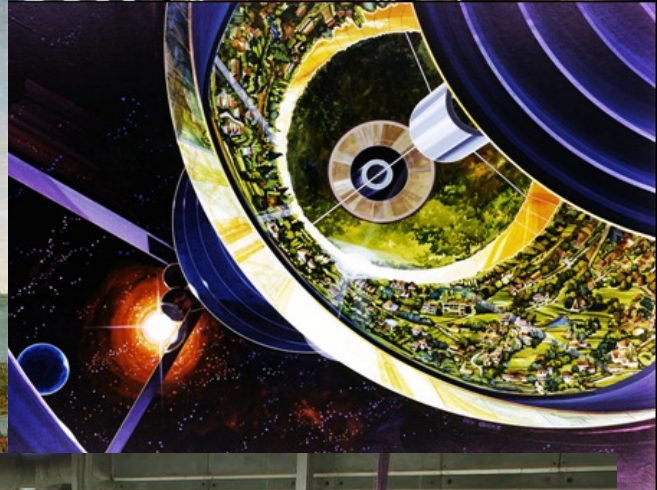
2% of insect species



80% of insect biomass



# Humans The Eusocial Mammals



# Forgiveness: A Special Kind of Altruism

Inclusive Fitness forms of genetic interest

Direct reproduction (my genes)

Kin Selection (my relatives' genes)

Reciprocal Altruism ("banking")

Indirect (reputational) Altruism

## 5 Forms of Cooperation

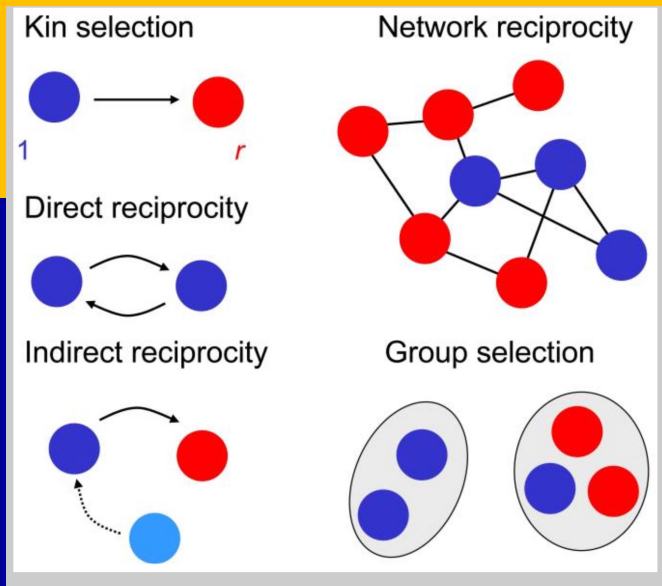
Kin Selection

Reciprocal Altruism

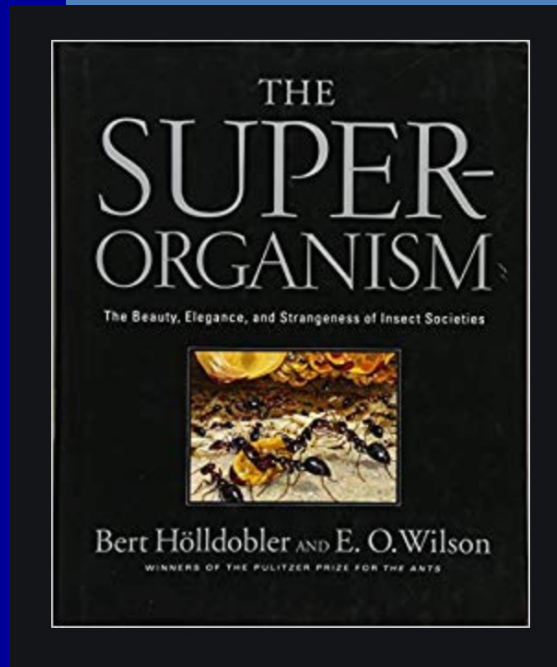
Indirect (reputational) Altruism

Network Reciprocity

Group Selection







E. O. Wilson



Inclusive Fitness

Direct reproduction

Kin Selection

Reciprocal Altruism

Indirect (reputational) Altruism

More controverted

Group Selection

More theological

Motivated Altruism

Divine Altruism



'Groundbreaking' *Nature*

'Fascinating' *Science*

'An absorbing, accessible book' *New York Times*

# SUPER COOPERATORS



Beyond The Survival of the Fittest  
Why Cooperation, not Competition, is the Key to Life

Martin Nowak  
With Roger Highfield

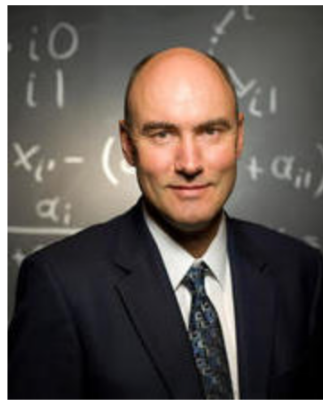
Evolution, Games, and God

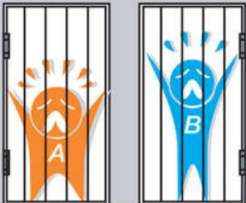

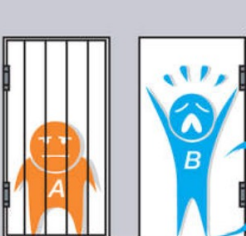
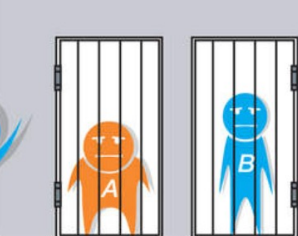
The Principle of Cooperation

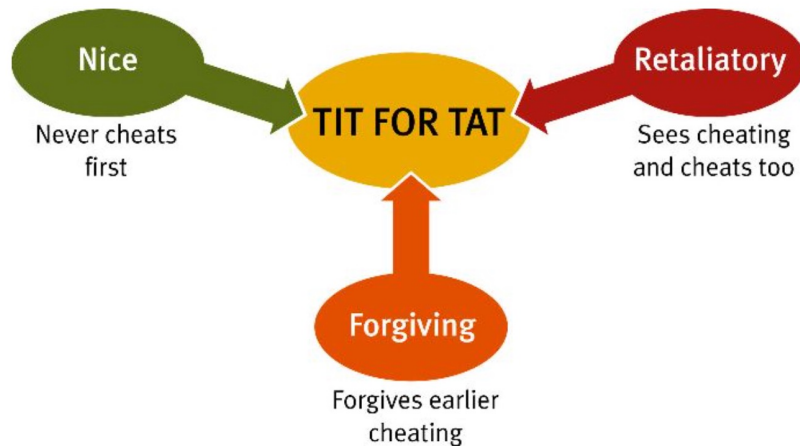
Martin A. Nowak | Sarah Coakley



# Martin Nowak



Prisoners' dilemma		prisoner B			
		confess		remain silent	
prisoner A	confess	 5 years    5 years	 0 year    20 years		
	remain silent	 20 years    0 year	 1 year    1 year		



"Prisoner's Dilemma" frames the issue negatively  
 Abundance Dilemma would frame it positively.

## Simulated Worlds

Generous Tit for Tat is the overall “winner”

But the simulated worlds go through repeated cycles

As cooperators increase, the benefits of being a more ready and forgiving cooperator increase....a “virtuous cycle” with greatest benefits for all

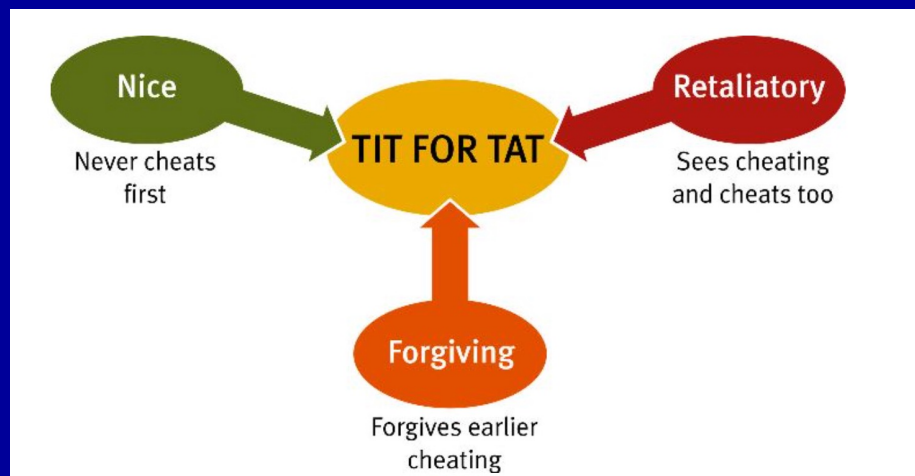
When cooperation levels are very high, the benefits of being a defector also go up....and a vicious cycle starts where the less cooperative get disproportionate benefit (the world is full of “suckers.”

## Tit for Tat

responds to change in other's behavior: if the other cooperates, change to cooperate...."forgiving" prior defections.....



Generous Tit for Tat is the winner only when the situation is made more realistic  
In real life people make mistakes, misunderstand, data is unclear, regret after the fact..... When that is the climate, then generous tit for tat outperforms



## Generous Tit for Tat

proactively sometimes cooperates with an "offender" who has not cooperated in past exchange.  
Proactive forgiveness....

The good news comes with bad news----

We become supportive to each other to help our group defeat other groups.

The breakthrough was to make our group much more inclusive and diverse, including people dramatically unlike each other according to earlier (kin and clan based) community.

So the “excess” of religious forgiveness pushed the envelope...

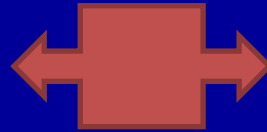
From bias to extend forgiveness only to those in our group.....

to the benefits that extending forgiveness makes people  
part of a larger group

But religious forgiveness is not about maximizing benefit, is it?

Forgive us our sins, as we  
forgive those who sin against us.

Matthew 6:12



For if you love those who love  
you, what reward do you have?  
Do not even the tax collectors do  
the same?

Matthew 5:46

### **Forgiveness in Excess**

But I say love your enemies. Pray for those  
who persecute you.

Matthew 5:44

Then Peter came up and said to him, “Lord, how often  
shall my brother sin against me, and I forgive him? As  
many as seven times?” Jesus said to him, “I do not say to  
you seven times, but seventy times seven

Matthew 18:21-22

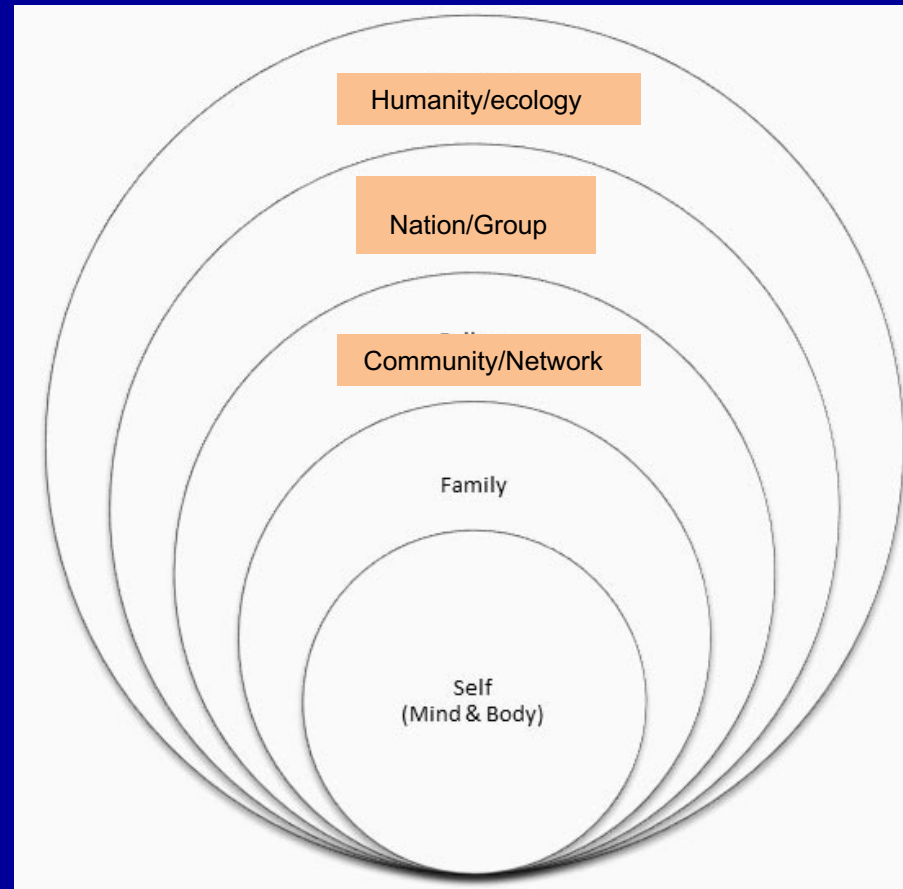
Who is my neighbor?.... Which of these was a neighbor?

The one who had mercy on him. Luke 10:25-37



God's aim in human history is the creation of an inclusive community of loving persons, with God included as its primary sustainer and most glorious inhabitant. --Dallas Willard

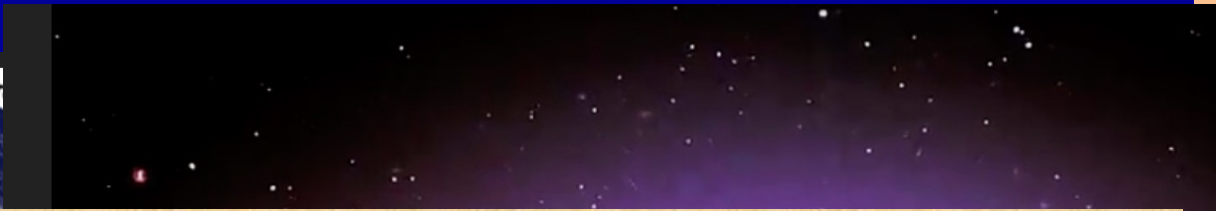
Love Your Neighbor





Forgiveness key to the first “big bang” of cooperative altruism that drove humanity to eusociality  
”excess” forgiveness toward a new “all” but less than universal

Can ”excess forgiveness” as taught by the monotheistic faiths be a force driving toward a more universal “all?”



$$\begin{aligned} \ell'(x) &= -\log^2\left(\frac{\sum_{k=1}^n p_k^* \log \frac{1}{p_k}}{\sum_{k=1}^n p_k^*}\right) - \left(\frac{\sum_{k=1}^n p_k^* \log \frac{1}{p_k}}{\sum_{k=1}^n p_k^*}\right)^2 \\ \ell(x) &= x \left[ \frac{g(x) - g}{n} \right] + o\left(\frac{1}{n}\right) \\ \prod_{k=1}^n \left[ g_k \left( \frac{t}{\sqrt{n}} \right) \right] &= e^{-\frac{t^2}{2}} \\ \int_{-\infty}^{\infty} f(x) dx &\geq \int_{-\infty}^{\infty} f(x)^n dx \\ \lim_{N \rightarrow \infty} \int_{-1}^1 f(x) \log_2 \frac{1}{f(x)} dx &= \int_{-1}^1 f(x) \log_2 \frac{1}{f(x)} dx \\ \det(U') &= \det(U) + \det(U'') = \det(U) \\ \ell(x_{ij}) &= \frac{1}{i\pi} \left[ \frac{1}{2} - e^{-\frac{x^2}{2}} - e^{-x^2} \right] \end{aligned}$$



