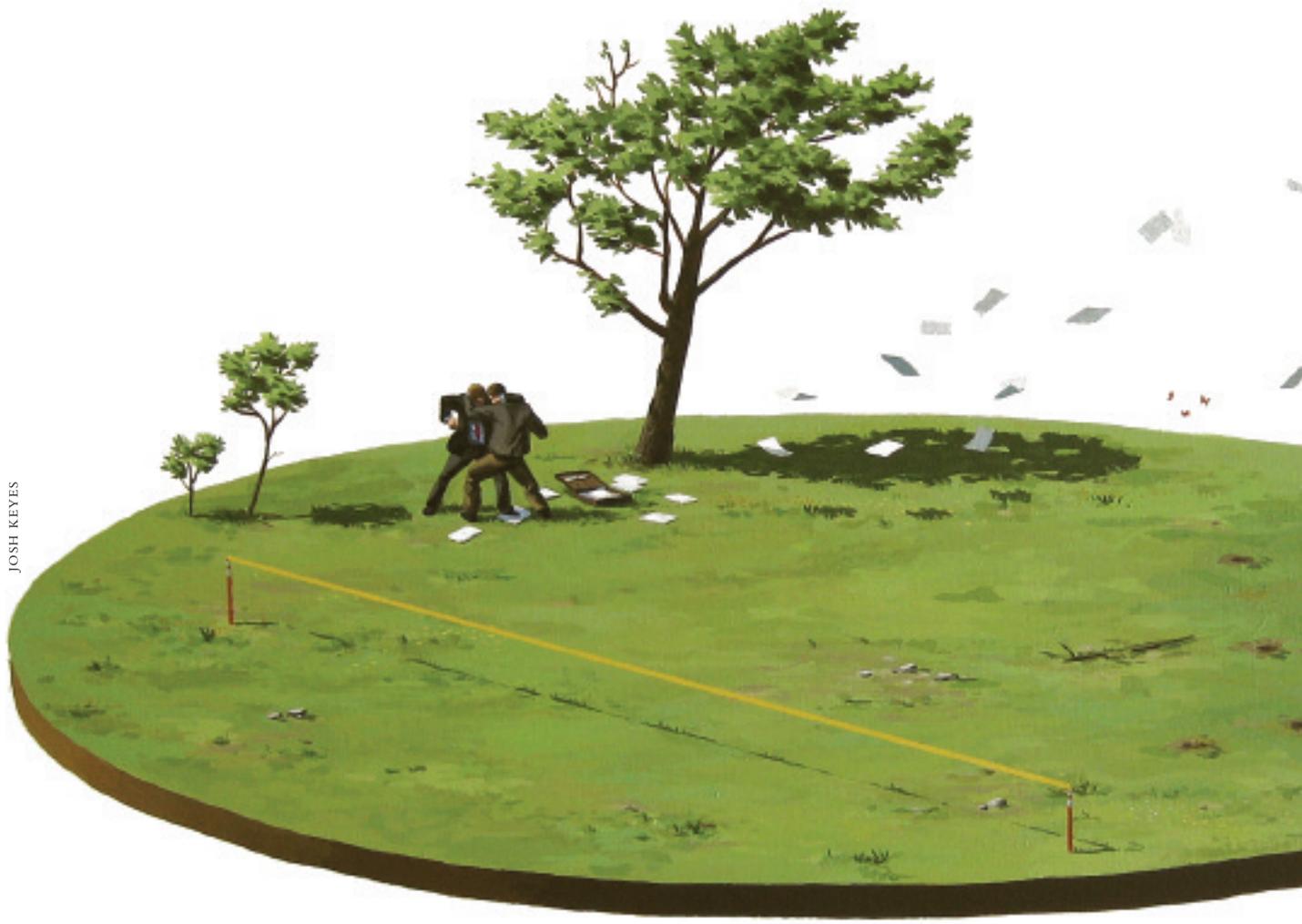


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# Averting the Tragedy of the Commons

AN ECOLOGICAL AND PSYCHOLOGICAL PERSPECTIVE

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**P**EACE DOESN'T REALLY EXIST in the natural world. At least not in the sense that a phrase like "world peace" implies—with life as an eternally relaxing experience, unfettered by petty annoyance, conflict, and suffering. Life requires an unrelenting struggle for limited resources such as food, water, healthy and fertile partners, and a safe place to mate, sleep, and raise one's young. Moreover, each creature needs to avoid falling victim to the multitude of other animals in pursuit of their own, unrelenting needs. No utopian situation exists in which resources are endlessly renewable and a creature's needs never conflict with another's—even when resources are plentiful. At such times, species reproduce wildly and use and consume those increased resources in the process. Thus, in nature conflict is unavoidable, true peace unattainable.

This old view of evolutionary destiny needs to be put into context.

For example, Frans de Waal has repeatedly documented compassion, support, and peacemaking in great apes, and examples of empathy and tailored care abound in the animal kingdom

(Preston and De Waal, 2002). Thus, life is not only characterized by struggle. Still, struggle exists, and

Tennyson may still be justified in characterizing nature as "red in tooth and claw . . . shriek[ing] against" man's belief in love. Even for modern humans in wealthy, developed nations endowed with bountiful resources, life is punctuated by a series of struggles for resources, from office politics to fights over parking spaces. Why do people in such privileged circumstances foment such petty conflicts?

## THE ONE PERCENT DOCTRINE

Evolution does not produce creatures that will survive; it produces creatures that *want* to survive. As Sartre pointed out in his existential tome *Being and Nothingness*, "It is the closing of the account which gives our life its meaning and its value." In other words, you cannot know until you have died whether your efforts were "fruitful or ill-starred," because the context of your prior acts is not fixed until the unpredictable moment of your death. If you cannot predict the future, it is sensible to continue adding to your surplus of offspring, wealth, and material goods even far beyond your needs, as an insurance policy against unexpected catastrophes such as severe droughts or floods, which will eliminate anyone without a surplus large enough to last until they end. Even nonmaterial surpluses of kindnesses and good deeds can be drawn upon when one later needs help. If the unthinkable never happens, your efforts will not have been in vain because they always add to your chances of survival and reproductive success—directly, indirectly, in the near future, or generations from now. And as long as you maximized

your potential, it really doesn't matter if you enjoyed the process. Like Noah, who sacrificed and toiled to build and stock his ark, one prepares for the possible flood in order to survive it.

And yet, if there really is "the tragedy of the commons," as Garrett Hardin suggested in his same-titled 1968 article, with individual efforts to survive continuously undermining the common good, then what hope is there for peace?

Conflict is not an all-or-none proposition. There are great qualitative and quantitative differences between (1) securing resources for one's own needs, (2) existing in a chronic state of fear that you do not have enough, and (3) using that fear to motivate preemptive action or disproportional force against others in order to feel more secure.

For example, my colleague Lucy Jacobs and I found that kangaroo rats did not change the way they stored seeds simply because a new neighbor arrived. Only after the neighbor actually stole from them did they move seeds into a defensible burrow or even store them in their mouths. This phenomenon may be akin to the "dear enemy effect," where animals avoid unnecessary and costly conflict unless necessitated by the situation. Compare this strategy to that of Dick Cheney, described in Ron Suskind's recent book *The One Percent Doctrine* (Simon and Schuster, 2006), whereby one should preemptively annihilate would-be terrorist groups or even countries if there is even a one percent chance that they will attack the United States.

Even though animal displays of dominance preemptively secure resources, they follow an Evolutionary Stable Strategy (ESS) using ritualized aggression to minimize conflict and injury. Thus, although red deer stags are equipped with large antlers, they most often solve conflicts over female harems through roaring contests that are scaled to the importance of the resource (Clutton-Brock and Albon, 1979). Such a strategy was also evident during the Cold War, where the two parties asserted their power in a protracted series of pronouncements and some lesser battles but never employed their nuclear weapons.

However, many modern cases of aggression appear to depart from these rules. Firstly, in cases such as gang warfare or the occupation of Iraq, the rules of gradual escalation are relatively bypassed despite the lethal form of the weapons employed. Secondly, in mass killings such as school shootings and terrorist attacks, there is an instigator without a consenting opponent—although this view may be tempered by the fact that both shooter and terrorist may be motivated by an adaptive intolerance of "bullying," itself

a disproportional form of aggression. Thirdly, many modern weapons are designed to kill large numbers of people simultaneously, most of whom have little control over the perceived provocation and maybe even exhibited strong opposition to the conflict. Fourthly, the most lethal weapons are employed by nations with the greatest abundance of resources, not the ones who are literally fighting for their lives. And finally, even in cases of genocide in places where resources are disputed, such as Rwanda, the scope of the aggression far exceeds what is necessary to ensure survival.

There are multiple possible reasons for these deviations from the ESS of aggression. In the case of rich countries with the money to build the most deadly weapons, a disconnection is created between the importance of the resource for survival and the potential risk of the mode of conflict. Moreover, it may seem necessary to employ weapons that are especially lethal, despite the cost and the potential risk, because a strategy like the One Percent Doctrine ensures survival—the bottom line of evolutionary success.

The sheer power of these expensive, modern, lethal weapons also creates a deviation from the model because evolution has not had a chance to account for them. Whereas red deer and rattlesnakes have had millions of years of evolution to select for stable strategies that are hardwired into their behavioral repertoires, people have had only a few hundred years to deal with the complexities of modern weapons and tend to excessively rationalize the decision to use them, which often leads to counter-productive and often fatally misguided decisions.

In addition, if it's true that physiological states like stress and fear are naturally designed to indicate the level of risk in an environment, then "unrelated" stressors like factory layoffs or marital conflicts can amplify those feelings and cause someone to overestimate other unrelated risks such as West Nile virus or drive-by shootings. The result is a state of vigilance that is disproportional to the actual risk and that can further contribute to overreaction, the demonizing of others, and even emotional paralysis. A nice walk on a sunny day can thus be filled with gratuitous anxiety.

## THE MINDFULNESS DOCTRINE

Our behavior thus fluctuates between sensible and difficult to control, casting doubt on the possibility for peace. At the same time, research using behavioral testing, psychophysiology, and even brain imaging shows that empathy and the impetus to help are greatly increased when one feels

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similar or familiar to another. Thus, one possible way to reduce conflict is to provide people with opportunities for understanding and relating to others, similar to the rationale behind cultural exchange and diversity programs. This is a good system for increasing peace between individuals or groups who consistently clash, such as in-laws or cultural groups that coexist in a given territory, but it is not a good strategy for reducing global conflicts because one would have to be exposed, in a meaningful way, to every possible “other,” which would be inefficient to the point of being prohibitive. However, recent research into the mind-body interaction suggests an alternative intervention that is known to increase empathy and compassion across the board, which may also reduce the primary need to fight over resources and make necessary responses more proportional to the actual threat.

Buddhism, in its more modern and less theistic form, employs meditation to improve health and well-being. One important goal in Buddhist philosophy is to attain enlightenment and contentment by relinquishing one's attachments to thoughts, desires, possessions, and even self. It asserts that our excessive investment in self causes us to habitually brush aside temporary discomfort in an attempt to preserve the ego, clinging to thoughts, ideas, and our identities as permanent and fixed. Through training, one can learn how to bring these seemingly random and unknowable thoughts into greater reflection, allowing their meaning to penetrate into consciousness and providing an opportunity to be released from their influence. Controlled studies have shown that incorporating meditative practice into Western daily life not only reduces stress and interpersonal conflict but also fosters positive states

such as love, compassion, openness, and empathy (Perez-De-Albeniz and Holmes, 2000). In one particularly striking experiment, Richard Davidson and colleagues found that a group of people who started meditation practice increased brain activation in the front, left part of the brain while at rest or meditating. This was interpreted as reflecting increased positivity, which was directly related to a significant increase in immune function compared to a control group (Davidson, Kabat-Zinn, et al., 2003). Similar effects were found in practicing Buddhist monks.

Apart from simply making people feel more relaxed, releasing one's attachments can have multiple, positive reinforcing effects on the societal ills outlined above and on the tragedy of the commons more generally. A less intense attachment to self would reduce perceptual biases. A heightened openness to people, thoughts, and ideas would improve interpersonal relationships and increase empathy and compassion, which would in turn decrease conflict through improved communication and negotiation. A less egocentric perception of the world would reduce consumerist and materialistic tendencies because material goods would not be seen as a reflection of one's identity and status and would not be used to provide temporary relief from distress. Reduced consumerism would reduce global conflict over resources, as well as environmental waste and pollution, both of which have deleterious effects on physical health and long-term reproductive potential. Moreover, with fewer material needs, people could spend more time with their families and communities. Dispensing with some of life's luxuries may even increase happiness—fewer distractions, fewer decisions, less anxiety.

There are, of course, limitations. It is unlikely that a

# THE SHAMATHA PROJECT

B. Alan Wallace, a Buddhist contemplative scholar and president of the Santa Barbara Institute for Consciousness Studies, and Clifford Saron, a social psychologist and assistant research scientist at the Center for Mind and Brain at the University of California, Davis, are coleaders of the Shamatha Project (*shamatha* means “calm-abiding”). The meeting of neuroscience and meditation isn’t new, but this study, funded by the Fetzer Institute and the Hershey Family Foundation, is unique in that it will track the long-term benefits of meditation practice using a variety of both scientific and psychological techniques. Most previous studies have focused on the actual single-point state of meditation, using less developed social-cognitive and brain-imaging techniques and limiting measurements to physiological changes. In this study, 64 people with varying degrees of experience will meditate for eight to ten hours a day during one of two three-month-long retreats next year at the Shambhala Mountain Center in northern Colorado. According to the project summary, “The training methods will include deep, intensive meditation training that fosters attentional vividness and stability” and cultivation of what are called the Four Immeasurables—compassion, loving-kindness, empathetic joy, and equanimity. “We are basically measuring brain potential,” says Saron. “Are humans capable of becoming—and staying—compassionate?” More information is available at [www.sbinstitute.com/research\\_shamatha.html](http://www.sbinstitute.com/research_shamatha.html) and [www.shambhalamountain.org/shamatha](http://www.shambhalamountain.org/shamatha).

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majority of people will adopt a practice that requires effort, concentration, time, and a strong desire to improve one’s condition. Moreover, such practices will not be uniformly successful: Research suggests that they are more effective for people who are emotionally and psychologically available and less effective when people have serious forms of ego attachment. Even among Buddhist monks, documented scandals demonstrate that transcendence can be falsified or does not inoculate against human weakness. However, the fact that expensive, meditation-based wellness programs are usually filled to capacity suggests that many people are willing to try.

The most obvious counter-argument to such a suggestion, explicated in “The Tragedy of the Commons” and above, is that those who continue to compete at a high intensity will outstrip those who adopt a lower intensity mode of resource acquisition. In the short term, less competitive individuals would succeed at a lower rate and could be taken advantage of (or even enslaved) because they have not developed the necessary defenses. In the long term, these individuals would come to represent a shrinking portion of the gene pool because of their fewer numbers and decreased ability to survive certain serious selection pressures, such as drought, because they would have failed to compulsively add to their surplus—necessary in a lean time.

According to a precise formulation of what we will call “the mindfulness doctrine,” however, these points are moot. The goal is not to create a culture of passivity or to fail to acknowledge that people need to secure necessary resources. It is to maximize reproductive success for the self and for the commons by alleviating the negative impacts of stress in the form of poor health, loss of life from excessive force, and poor support for relatives and friends, while amplifying the positive impacts of well-being in the form of enhanced relationships, greater sharing of resources, and preservation of the natural world. Mindful individuals respond to threats in an appropriate and thoughtful way, thus reducing the absolute level of conflicts and saving resources for actual rainy days. The most basic premise of Hardin, that we could never do the greatest good for the greatest number, may be false. Perhaps we can work half as hard, without any of the stress, and actually flourish. 🌍

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