but between groups. As soon as you start talking about what's called group selection theory, then the idea we are wired to be good neighbors begins to make sense.

Q. Is being evil an essential and defining characteristic of mankind?

A. Human nature is capable of some very nefarious things. Part of it is because there are some individuals who are, quite frankly, born sociopaths in the sense they don't have the neurological equipment to feel compassion. They cannot feel into the experiences of other people, so the suffering of others means nothing to them. [This] probably [pertains to] 2 percent to 3 percent of people. They're not all serial killers, you know. Some of them are probably running Wall Street firms and have ruined a lot of lives. They just don't have the sort of normal connectedness…there are people who are raised in such disturbing ways that…all the wrong buttons are pushed. They live very difficult, hostile lives. Hurt people hurt people.

Studies point out that…human evil [occurs] when our compassionate tendencies are overwhelmed by an equally important tendency, which is hierarchical virtue, hierarchical obedience. There is no question that human nature—*homo sapiens*—evolved in hierarchies. The primate world is full of hierarchies. If your hierarchy is telling you to kill Jews in Nazi Germany, a lot of otherwise reasonably good people will go out and do that. In fact, many of the defendants in the Nuremburg trials…said, "I was just doing as I was told." That's what they said in the Tuskegee syphilis experiments, [too].

There are lots of things that can inhibit this capacity for compassion, but my point is simply that it is very much a part of 99 percent of us, and we need to take it very seriously. We ought to have more confidence in our own good nature and…celebrate the fact, which I believe Darwin did, that evolutionarily there would be actual biological benefit to operationalizing these kinds of capacities because they would be to the advantage of our group and to the advantage of ourselves as parts of groups.

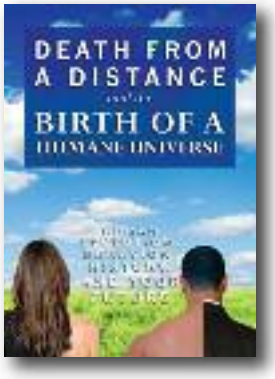
What's interesting is there's an epidemiology of it: A positive emotional life has lots of benefits, not just for other people but also for ourselves. ■

Carol Richards is editor at large for The Brook.

Evolution Revolution

By Margaret Jaworski

It's the question that Charles Darwin himself could not answer: What makes human interaction so unique? *In their new book,* Death From a Distance and the Birth of a Humane Universe, *Stony Brook University colleagues, collaborators, and researchers Paul M. Bingham and Joanne Souza argue that humans are unique among all animals for a single, simple reason: our ability to manage conflicts of interest. This exclusive capacity is at the core of this far-reaching theory of everything human.*



Two million years ago, we were a stone's throw away from becoming human. Humans are the only animals on Earth that can throw with precision and purpose. As it happens, "the prosaic skills utilized today in baseball turn out to be the foundation of all things human," says Bingham. This skill may explain why A-Rod and Jeter make millions, but how does it explain human social evolution?

According to Bingham and Souza, this novel physical virtuosity—what they've dubbed "elite throwing"—probably evolved some two million years ago as part of a hunting or scavenging adaptation. Elite throwing was the fertilizer that nourished some "unexpected, revolutionary, unique advantages for these proto-humans," says Bingham. It allowed our hominid ancestors to develop the capacity to ostracize, coerce, punish, and even kill members of their own species from a distance, thereby reducing their individual exposure to harm. It also fostered cooperation. Clearly, a hail of rocks—and later arrows, bullets, etc.—is more effective and efficient than a lone stone thrower.

When you have multiple individuals teaming up to hunt for food, scare off predators, or coerce others to behave, you get what Bingham and Souza describe as "cheap law enforcement," which then opens the door to broader cooperation, along with more effective communal living.

Bingham and Souza's theory of human uniqueness springs from their belief that "conflicts of interest" dominate all human social interaction. "Conflicts of interest are to social behavior what gravity is to astronomy," says Bingham. "What this means is that all organisms have an incentive to compete with one another for access to scarce, crucial resources and assets needed to survive and reproduce," says Souza. "Humans became different because we could 'inexpensively' control these conflicts of interest. And consequently we are the only animal species on Earth to show extensive kinship-independent (nonrelative) social cooperation," says Souza.

And because humans could cost-effectively control conflicts, for the first time natural selection could "reward individuals who actively suppressed conflicts of interest in others. Not putting up with liars, cheats, thieves, and other miscreants became biologically adaptive," says Bingham. All the evolutionary milestones that followed—larger brain size and language, for example—are the "result, not the antecedent, of cooperative nonkin behavior." As cooperation thrived, information passed more freely, language evolved to spread the information, and brain size expanded to process and store that information.

Bingham and Souza admit that on the surface, their theory might be unsettling. "It can seem a little disturbing to think that humane behavior emerges from our mutual access to coercive threat," says Bingham. "But it is precisely this shared capacity for law enforcement that enables and empowers the better angels of our uniquely human nature."

"We can use our unprecedented evolved ability to project threat remotely (hence *Death From a Distance*), to insist on an entirely new scale of social cooperation (hence *Birth of a Humane Universe*). Everything human about us flows—powerfully and simply—from this evolved insistence on mutual collaboration."

Death From A Distance and the Birth Of A Humane Universe *is available at* http://deathfromadistance.com.