

# Researchers explore the relationship between empathy and aggression

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Empathy is among humanity's defining characteristics. Understanding another person's plight can inspire gentle emotions and encourage nurturing behaviors.

Yet under certain circumstances, feelings of warmth, tenderness and sympathy can in fact predict aggressive behaviors, according to a recent study by two University at Buffalo researchers.

But why?

That an expression of kindness might be manifest as a punch in the nose can leave observers scratching their heads.

The answer is that it's not about anger or feeling personally threatened, says Michael J. Poulin, whose study, "Empathy, Target Distress and Neurohormone Genes Interact to Predict Aggression for Others—Even Without Provocation," with Anneke E.K. Buffone, a graduate student in the UB Department of Psychology, was published in this month's edition of *Personality and Social Psychology Bulletin*.

Two neurohormones appear to be among the mechanisms contributing to the counterintuitive response. These are chemicals that act as both hormones in the blood stream and neurotransmitters in the brain.

"Both oxytocin and vasopressin seem to serve a function leading to increased 'approach behaviors,'" says Poulin, associate professor of psychology. "People are motivated by social approach or getting closer to others."

But Poulin adds that people approach one another for many reasons, including aggression, so it stands to reason that if compassion is linked to the action of these hormones and these hormones are linked to social approach behaviors that they might help account for the link between compassion and aggression.

The researchers conducted a two-part study consisting of a survey and an experiment. "The results of both indicate that the feelings we broadly call empathic concern, or compassion, can predict aggression on behalf of those in need," says Poulin.

The survey asked people to report on someone close to them and explain how that person was threatened by a third-party. Then, participants described their emotions and reaction to the situation.

"That wasn't surprising," says Poulin.

People aggressing on behalf of others has been widely researched, but Buffone and Poulin say "the idea that [empathy](#) can drive aggression absent of provocation or injustice is quite novel."

In the experiment, participants provided a saliva sample in order to measure neurohormone levels, then heard a compassion-evoking story about someone they never met, a fictional participant who was supposedly in another room with a second fictional participant. The actual participants were informed that the pair in the other room, strangers to each other, who were to take a math test, would be exposed to a painful but harmless stimulus (hot sauce) to measure the effects of physical pain on performance. During the test, the real subject had a choice on how much of a painful stimulus they would provide to the third party who was competing with the person they had compassion toward.

"The results of both the survey and the experiment indicate that the feelings we have when other people are in need, what we broadly call empathic concern or compassion, can predict [aggression](#) on behalf of those in need," says Poulin. "In situations where we care about someone very much, as humans, we were motivated to benefit them, but if there is someone else in the way, we may do things to harm that third party."

And that reaction is not because the third party has done anything wrong.

Consider parents who in order to benefit their child in competition might do something destructive to another challenger, Poulin says, or soldiers who in battle think more of protecting a comrade than fighting against a broader national threat.

Our study adds that our response is because of love or [compassion](#) for

those we care about, he says.

Provided by University at Buffalo

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