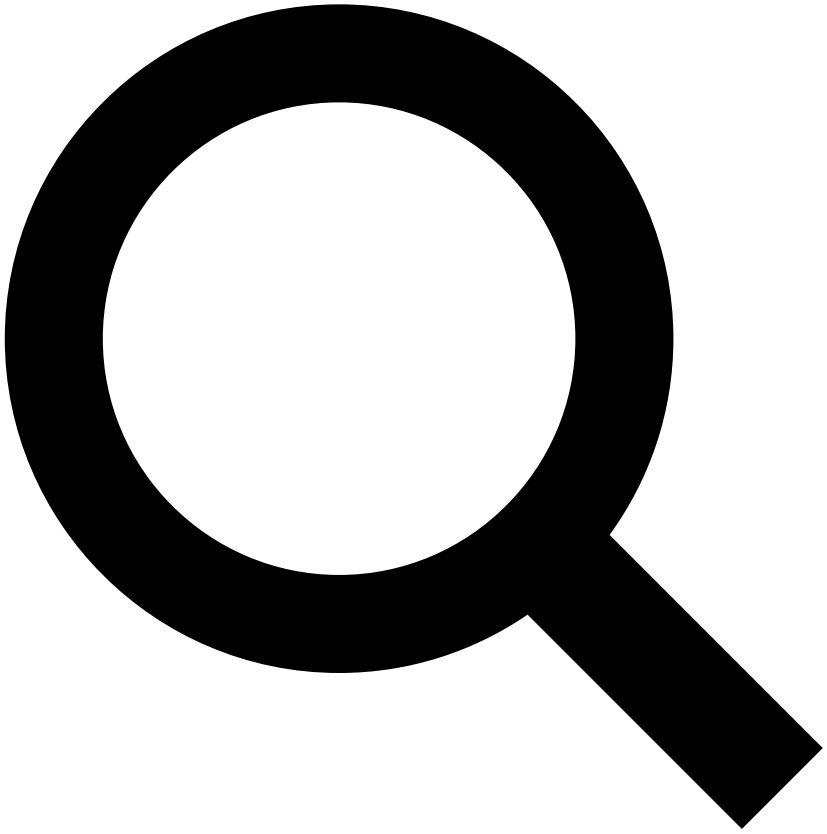
PNAS has just released an article on the variability of cultural attitudes to punishment. However, one may wonder if the experiment is really about punishment or cultural attitudes. Here is the abstract.

In a pairwise interaction, an individual who uses costly punishment must pay a cost in order that the opponent incurs a cost. It has been argued that individuals will behave more cooperatively if they know that their opponent has the option of using costly punishment. We examined this hypothesis by conducting two repeated two-player Prisoner's Dilemma experiments, that differed in their payoffs associated to cooperation, with university students from Beijing as participants. In these experiments, the level of cooperation either stayed the same or actually decreased when compared with the control experiments in which costly punishment was not an option. We argue that this result is likely due to differences in cultural attitudes to cooperation and punishment based on similar experiments with university students from Boston that found cooperation did increase with costly punishment.

The study replicates an earlier finding in which the results were pretty clear: The more you punish your partner the more likely you are to end up with nothing… As Gandhi was said to put it, "an eye for an eye will make the world go blind"…



However, the authors of both studies may go a little bit too far in claiming that their results prove costly punishment to be maladaptive. What they are attacking here is the theory of group selection

by costly punishment. According to this theory, cooperation evolved because individuals were ready to incur costs to punish noncooperators, thus benefitting a large group of nonrelatives. But the present results have nothing to do with the kind of punishment proposed by group selection theorists. In group selection, punishment involved a third party who has nothing to gain from punishing the wrongdoer. It is typically tested with public good experiments where participants should contribute to the common good and punish those who do not contribute. In these experiments, individuals have a stake in refraining from contributing and from punishing non contributors – for in this way, they can enjoy the public good while not paying any cost to promote it.

In contrast, in the experiments we are discussing, participants play a repeated prisoner's dilemma with another participant. In each round, participants chose between cooperating, defecting or punishing the other participant. In this case, participants are directly involved in the interactions and may benefit considerably from threatening their partners. By punishing, you show your partner that you are not going to be exploited in the following rounds. In other words, participants' behaviour are not costly punishment, there are, rather, a kind of preventive revenge – a way to display one's strength. Therefore, these studies are best viewed as confirming the virtues of reciprocal altruism: It always pays to be nice!

What about cultural attitudes ? Why are Chinese subjects much less cooperative than American subjects? The explanation could be that Chinese participants are exactly in the 'revenge spirit' I have just described: "Punishment in the first round could then be an attempt to establish oneself as a dominant authority figure who is willing to punish in later rounds if dissatisfied with the interaction. Such a strategy (summarized by the Chinese phrase ‘‘xia ma wei,'' which means to deal someone a head-on blow at first encounter) is a strong admonition to an opponent, almost amounting to intimidation." Chinese subjects may be in the "an eye for an eye" spirit! In contrast, American subjects are much less aggressive and trust their partner more (less than 5% of them punish their partner preemptively in the first round, while more than a quarter of Chinese participants do).

Does it mean that we have found a genuine cultural difference? Nothing is less certain. Indeed, previous results, as well as the World Value Survey, have revealed a high level of cooperation and trust in China. It may be that the instructions, the setting, or the way they understood the experiments caused Chinese and American participants to frame the experiment in different ways. The Chinese think they are competing with each others while the American see the game as a cool and cooperative experiment. I am not saying there are no differences between American and Chinese. However, such very simplistic and artificial settings may not be the best way to observe them. Many cultural differences supposedly demonstrated in behavioural economics, I suspect, have more to do with the way the experiments were framed by participants than with actual 'cultural' dispositions (see the methodological problems of inter-cultural comparisons). By contrast, enriching the context (like here or here or even here) may help control for framing effects and understand what's going on in the participants' heads!