

# Triumphal displays set the social order straight

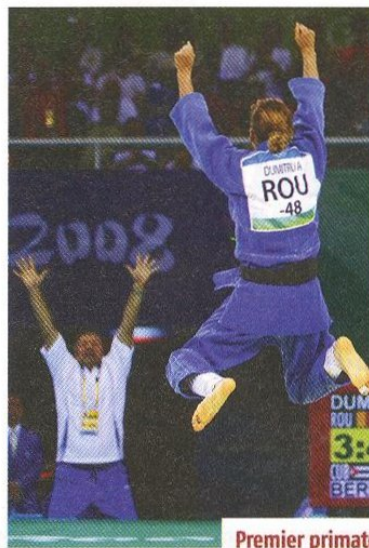
ARE the actions of throwing our arms in the air when we win and slumping our shoulders when we lose innate or learned by watching others? A study of blind athletes suggests they are hard-wired – and may have evolved as a way of asserting a position in a social hierarchy.

David Matsumoto of San Francisco State University and Jessica Tracy of the University of British Columbia in Vancouver, Canada, took photos of blind athletes winning and losing judo matches during the Paralympic Games in 2004, and compared these with similar images of sighted athletes in the Olympic Games that year.

The athletes who had been blind from birth tended to produce the

same gestures in response to winning and losing as the sighted ones (*Proceedings of the National Academy of Sciences*, DOI: 10.1073/pnas.0802686105). "These behaviours were generated by people who could not have learned them visually," says Matsumoto. "That points to something that is probably biologically innate."

Is there an evolutionary benefit to such displays? Matsumoto believes physical expressions of pride may have evolved as a way of signalling the winner's success to the rest of society, thereby boosting social status. Similarly, the response to shame would show an aggressor that the loser accepts their inferiority, helping



Premier primate

to avoid further conflict. "The ability to signal these kinds of behaviours reinforces hierarchies and social networks," he says. The researchers also point out that such displays closely resemble dominance and submission displays in other primates.

But Paul Ekman of Oakland, California, who researches human emotion and facial expressions, warns that what the athletes are expressing by their gestures is unclear. "Pride is an ambiguous term that covers many different states," he says. "There is no certainty that it is pride rather than a state of excited enjoyment."

There was also a notable exception in the results. Sighted athletes from the US – and a few other countries that tend to celebrate individualism – were reserved when it came to losing. But blind athletes from these countries responded in the same way as athletes from less individualistic cultures – bowing their heads and slumping their shoulders.

The researchers propose that the sighted athletes from individualistic cultures are under pressure to suppress their natural response to shame, but that the blind athletes are not affected by this learned behaviour. Tamsin Osborne ●