

## Hawks, doves, and birds of paradise

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Confrontation has been a master force in our evolution, shaping physical and behavioral endowments and sharpening wits. Many confrontational capacities long ago entered a favored mix of animal traits, but the only one among them whose greatest refinements were to occur in us, in *Homo sapiens*, was cunning. It made of us an extraordinary species, despite our many physical mediocrities.

Are we, then, fully as cunning as we might be? Or just cunning enough? How would we know? And what might we learn by asking? In a pair of papers in this issue,<sup>1, 2</sup> three political scientists, James Hanley, Tomonori Morikawa, and John Orbell, reason through these questions first as a game-like problem in evolutionary theory and then as a terribly real problem in what Americans now call “homeland security.”

In a “hawk-dove” game, contestants for some valuable resource must assess fighting strength — one’s own and one’s opponent’s — and must then decide to attack or retreat. They may also bluff an attack. Great indeed would have been the genetic-fitness advantage accruing to animals intelligent enough to assess well and also to bluff well if necessary, for they could deceive while not themselves being deceived.

But how much insight into an opponent’s strength and intentions — how many “orders of recognition” of hawkish or dovish intent — would really be usable in a confrontation? How much insight would have been sufficiently adaptive to have been conserved over many generations? And how would our evolved gaming ability perform when unsuspecting players face opponents whose true intentions are not just incorrectly recognized — as being hawkish when they are dovish or dovish when they are hawkish — but entirely unimagined?

Evolution aside, the first and firmest assumption players make about opponents is that they are rational, that they think in familiar ways, hope to avoid personal risk, and respond incrementally to worldly inducement, perhaps not early in an act of aggression or when highly agitated or altruistically motivated but ultimately nonetheless. The second assumption is surely that opponents are rivals; they seek a prize that might if necessary be given up or split. When these assumptions are

valid, easily recognized games — “games with names” — ensue.

These assumptions were not valid in at least four American jet airliners when pressure doors sealed shut September 11, 2001. With hijackings underway, the passengers of two or three of the four craft failed fully to recognize that their opponents — their principal opponents, anyway — were not playing a standard game but debuting a new one, were not trying to avoid personal risk but seeking a bravura death with instantaneous pain-free ascents to paradise, were not attracted by worldly inducement but repulsed by it, and were simultaneously aggressive, agitated, and altruistic. And had apparently been so through several years of planning and rehearsal. Worst of all, these opponents were not in any expected way rivals, being interested not at all in the passengers themselves or their ransom value but in the caloric content of the fuel surrounding them. The passengers must have thought they were being forced to play “hijack” or “terrorist,” may never have imagined a game called “suicide hijack” or “suicide terrorist” and must have hoped to survive — as so many kidnapped travelers had done before them over the decades — through gritty perseverance. They had nothing to offer but compliance under threat of death, and this offer was accepted under the falsest of pretenses. In at least the fourth airliner, the one wrestled to the ground in Pennsylvania, game recognition was assisted by cellular telephone contacts. Compliance was denied by passengers understanding their remaining options and seizing the boldest among them.

Confrontational groups unable through argument to win high stakes at the political gaming table may try instead through action to overturn the table itself. We evolved to be, by our lights, rational people living normal lives confronting and besting, or being bested by, other people like us. Yet if dozens of young men can firmly enough believe in the magic of martyrdom to make their true intentions initially unimaginable then the power they can wield — once — increases. And the power their mentor-commanders can wield more than once and in more than one way increases by great and grim proportions.

## *Hawks, doves, and birds of paradise*

We may not have evolved to recognize this new game, but we can teach ourselves how to see it. We may not have been led to believe in its payoffs, but we can learn how to calculate them — and how to keep them ever again anywhere from being “earned.”

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### **References**

1. Tomonori Morikawa, James Hanley, and John Orbell, “Cognitive requirements for hawk-dove games: a functional analysis of evolutionary design,” *Politics and the Life Sciences*, March 2002, 21:1, pp. 3–12.
2. James Hanley, John Orbell, and Tomonori Morikawa, “The cost of misinformation in deadly conflicts: hawk-dove games and suicidal terrorism,” *Politics and the Life Sciences*, March 2002, 21:1, pp. 13–18.