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Original Article

Foundations of the Crazy Bastard Hypothesis: Nonviolent physical risk-taking enhances conceptualized formidability☆,☆☆

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ABSTRACT

Wilson and Daly's Young Male Syndrome thesis seeks to explain why young men are disproportionally involved in both violence and non-violent activities entailing a risk of injury or death. One interpretation of this thesis, which we term the Crazy Bastard Hypothesis, holds that the correlation between violence and other forms of physical risk-taking occurs because the latter behaviors inherently index the general propensity to take risks with one's life. In violent conflicts, individuals who are indifferent to the prospect of injury or death constitute dangerous adversaries, and valuable allies. Voluntary physical risk-taking may thus serve a signaling function such that risk-prone individuals are perceived as more formidable than risk-averse individuals. Prior work has demonstrated that relative formidability is represented using the dimensions of conceptualized size and strength, providing an avenue for testing the Crazy Bastard Hypothesis. In multiple studies conducted in two disparate societies, we demonstrate that physically risk-prone men are envisioned to be larger, stronger, and more violent than risk-averse men. A separate study reveals that such conceptualizations are unlikely to reflect actual correlations between size/strength and physical risk-proneness, and are instead plausibly interpreted as revealing the contribution of observed physical risk-proneness to assessments of relative formidability.

1. Introduction

Wilson and Daly's explanation of the predominance of young men as both perpetrators and victims of homicide is a landmark theory in evolutionary psychology. As articulated in their seminal 1985 paper and subsequently expanded (Daly & Wilson, 1988, 1990, 2001; Wilson & Daly, 1993; Wilson, Daly, & Pound, 2002), Wilson and Daly's Young Male Syndrome thesis holds that our species' combination of sex-biased parental investment (creating an effectively polygynous mating system) and protracted social and reproductive careers has selected for risk-proneness in young males, primarily defined as preferring exposure to relatively large or likely hazards in exchange for relatively large or likely benefits (Wilson & Daly, 1985). Much violence among men, Wilson and Daly assert, constitutes competition over status or resources that would have translated into mating opportunities in ancestral environments (see also Archer, 2009; Sell, Hone, & Pound, 2012). Because humans have long lifespans, the stakes in such competition are particularly high for young men, as they are entering the competitive arena for the first time, and those who succeed in obtaining high rank will reap substantial fitness returns over the long term.

From its initial formulation, Wilson and Daly's thesis has included the observation that the epidemiology of homicide matches that of other forms of risk-taking. Although nowhere do Wilson and Daly expound extensively upon all facets of this argument, we interpret their position as suggesting five mutually compatible explanations for this pattern. First, some forms of young male risk-taking may be byproducts of the greater risk-proneness that is a prerequisite for the propensity to enter into potentially lethal male–male confrontations. Second, many nonviolent forms of risk-taking, such as those occurring in contexts of resource acquisition, may reflect the same logic as that underlying male–male violence, namely that the higher fitness payoffs of success make gambling more worthwhile for men, particularly when young. Third, nonviolent risk-taking can honestly signal attributes – including both underlying genetic quality and manifestations such as strength and coordination – that are valued by potential mates, affines, and allies. Fourth, some acts offer inductive potential beyond the specific act itself, as they index the tendency to engage in a larger class of actions of which the observed act is an instance. Because the potential costs entailed by voluntary physical risk-taking will deter most individuals from so acting, it is rational for observers to assume that instances of physical risk-taking reveal an underlying behavioral tendency in the actor observed — independent

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of bodily properties signaled by risky behavior, physical risk-taking indexes the actor's propensity to take risks with life and limb. Attributes such as strength and coordination have utility in many domains, hence signals of such qualities inform observers about many potential contexts of interaction. In contrast, indices of physical risk-proneness have particular relevance to the domain of violent confrontation. Ceteris paribus, a physically risk-prone individual is a more formidable adversary than a risk-averse individual, as, being less deterred by the possibility of harm, the former will initiate, persist in, and escalate agonistic interactions to a greater degree. Because knowledge of a potential adversary's physical risk-proneness can thus lead those less willing or able to suffer costs to defer or retreat, honestly advertising risk-proneness by risking one's physical safety is of particular value to individuals inclined to pursue fitness advantages through violent conflict, i.e., young men (see also Fessler, 2010). Moreover, given the importance of coalitions in conflicts, potential adversaries are not the only audience for such signals, as potential allies should also be interested in acquiring information regarding an individual's formidability. Fifth, because any behavior that communicates valued attributes can become an arena for prestige competition, and because prestige yields additional fitness benefits, the same logic predicts that young men are most likely to seek prestige through physical risk-taking. However, in contrast to attributes such as strength and coordination that are valued by a broad audience, physical risk-proneness will be valued principally by that narrower category of individuals likely to form agonistic coalitions, and hence it will be considered prestigious primarily among young men.

Consonant with the role of reputation in deterrence, the presence of an audience is known to enhance the likelihood that altercations among young men will escalate to violence; correspondingly, from their earliest work on the Young Male Syndrome, Wilson and Daly (1985) similarly noted that audiences have an exacerbating effect on nonviolent risk-taking in young men, a pattern subsequently probed experimentally (Daly & Wilson, 2001; see also Ermer, Cosmides, & Tooby, 2008; Fischer & Hills, 2012; Griskevicius et al., 2009). Such findings suggest that young men's propensity for nonviolent risk-taking may indeed serve a communicative function.

Substantial research examines the notion that young men engage in risky activities to signal broadly-valued attributes and compete for associated prestige (e.g., Baker & Maner, 2009; Bliege Bird & Smith, 2005; Farthing, 2005; Frankenhuis, Dotsch, Karremans, & Wigboldus, 2010; Hawkes & Bliege Bird, 2002; Kelly & Dunbar, 2001; Ronay & von Hippel, 2010; Stenstrom, Saad, Nepomuceno, & Mendenhall, 2011; Sylwester & Pawłowski, 2011; Wilke, Hutchinson, Todd, & Kruger, 2006). Despite this, the question of whether physically risky behavior is valuable in part because it communicates risk-proneness remains unexplored. Drawing on evocative, if vulgar, slang, we label this the Crazy Bastard Hypothesis (CBH). In American vernacular English, this term is applied to individuals, generally young men, who intimidate rivals and impress friends through voluntary physical risk-taking — the uninformed are warned not to transgress against a "crazy bastard." More formally, the CBH's account of voluntary physical risk-taking as a strategy to deter adversaries and attract allies in a world of agonistic competition rests on the claim that information regarding an individual's degree of physical risk-proneness inherently contributes to an assessment of his formidability. Here, we explore this claim.

In previous research, we have demonstrated that relative formidability is conceptualized in terms of size and strength. Size and strength are phylogenetically ancient determinants of formidability, a relationship reinforced by developmental experience. However, these are not the only factors influencing formidability, as features such as health, sex, age, coalition size, and, in humans, access to weapons all play key roles. We theorized that, in light of the phylogenetic and ontogenetic centrality of size and strength in this domain, to facilitate decision making, multiple determinants of relative formidability are summarized in a representation wherein each relevant factor influences the conceptualized bodily size of the target — the more formidable the target relative to the perceiver, the larger and more muscular the target is conceptualized as being. It is important to note here that these dimensions of size and muscularity refer to a minds-eye image of the target — our theory concerns representations, not perceptions, of the target.

Addressing aspects of the target, we demonstrated in the U.S. that knowing that a man possesses a weapon increases estimations of his size and muscularity (Fessler, Holbrook, & Snyder, 2012). Consonant with the importance of coalitions in agonistic interactions, among U.S. participants, cognizance of terrorist leaders' military defeats lowers estimations of the size and muscularity of a representative terrorist, while awareness of their successes has the opposite effect (Holbrook & Fessler, 2013). Addressing aspects of the perceiver, among U.S. men, the presence of allies reduces the envisioned size and muscularity of an enemy (Fessler & Holbrook, 2013a). Similarly, in both the U.S. and rural Fiji, male participants' own physical strength is inversely related to their estimations of a potential antagonist's size and muscularity (Fessler et al., n.d.). Conversely, being physically incapacitated increases U.S. men's judgments in this regard, and decreases assessments of their own size (Fessler & Holbrook, 2013b).

Convergent evidence consonant with the above representational thesis is supplied by other investigators, working outside of an evolutionary framework, employing different measures. Yap, Mason, and Ames (2013) found that manipulating participants' sense of power shaped their estimates of a target individual's size and weight, such that participants made to feel powerful underestimated these dimensions, while participants made to feel powerless overestimated them. Similarly, Duguid and Goncalo (2012) demonstrated that participants made to feel powerful overestimated their own height and, secondarily, underestimated the height of a target individual.

In sum, existing evidence indicates that relative formidability is represented using conceptualized size and strength. Here, we employ this insight to test the foundations of the CBH: if knowledge of a target individual's degree of physical risk-proneness influences assessments of that individual's formidability, and if formidability is summarized in terms of conceptualized size, then physically risk-prone targets should be conceptualized as larger than risk-averse targets.

Our methods presume that information regarding an individual's physical risk-proneness will influence participants' estimates of his physical size because those estimates reflect participants' representations of his formidability. However, if we are to employ such methods, we must address the possibility that, in actuality, size may be correlated with risk-proneness. If it were the case that taller people took more physical risks than shorter people, then, should the predicted pattern of results occur, a parsimonious explanation would be that participants are good observers. Theory offers arguments both for and against such a possibility. On the one hand, as noted, physical risk-taking can serve as an honest signal of genetic quality, as the relative costs of the behavior are lower for those of higher quality. Ceteris paribus, height should also reflect genetic quality, as higher-quality individuals can afford to allocate fewer resources to immune defenses and somatic repair, and more resources to growth, predicting a positive correlation between height and risk-taking. On the other hand, risk-proneness should reflect life history variables (Hill, Thomson Ross, & Low, 1997; Wang, Kruger, & Wilke, 2009) orthogonal to quality. A key component of Wilson and Daly's thesis is that poor, low-status men have the most to gain by gambling with their lives (1985, 1993; Daly & Wilson, 1988, 1990, 2001; Wilson et al., 2002). Consonant with a faster life history trajectory, such men can also be expected to mature early, resulting in reduced stature, and thus a negative correlation between height and risk-taking. Because it is difficult to know in advance how each of these factors contributes to epidemiological patterns that could be observed by participants, we turn to empirical evidence.