

DEATH AND HAIRLESS CREATURES? ELUCIDATING EXISTENTIAL FACTORS IN THE EVOLUTION OF HUMAN BODY HAIR

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Introduction

Human hairlessness is something of an anomaly in the animal kingdom. Why did human beings lose their body hair? Why are we the only primates with nearly naked skin? The evolutionary theories that have been advanced so far run the gamut, from parasitic evasion to a brief phase as an aquatic animal (for a review of the theories, see Wade, 2003; Jablonski, 2010). However, despite all of the theorizing done so far, the exact evolutionary pressures that led to the loss of body hair still remains a mystery. The purpose of the following research was to test a psychological hypothesis for why humans may have lost their body hair, which is derived from Terror Management Theory (TMT; Greenberg, Pyszczynski, & Solomon, 1986) theorizing and research.

Terror Management Theory

Inspired by the works of cultural anthropologist Ernest Becker (e.g., *The Birth and Death of Meaning*, 1971; *The Denial of Death*, 1973; *Escape from Evil*, 1975), TMT was developed as a social psychological, empirical extension of Becker's psychoanalytic and existential ideas. Becker, as well as TMT, starts with two broad assumptions: (1) humans are like all other animals in that we have a biological propensity for continued existence, and that (2) we are *unlike* other animals in that our advanced cognitive architecture leaves us uniquely aware of the inevitability of death. That is, human beings share a great deal with our animal brethren, but the one thing that really marks us off as unique is our extreme capacity for self-reflective thought; the ability to be aware of ourselves as beings existing over time, with both a beginning (birth) and an end (death). This paradox of constantly being driven towards existence, but being aware that life is finite, has the potential for debilitating terror: a terror that has to be "managed".

To manage this terror, Becker theorized that we create and maintain "systems" of meaning to protect us from our existential anxiety. These systems are *culture*, which Becker broadly defines as a shared, symbolic, and mutually constituted (enforced) conception of reality. Stated with brevity: culture provides us with *meaning* and a sense of *self-esteem* in the face of death (see Pyszczynski, Greenberg, Solomon, Arndt, & Schimel, 2004). Furthermore, participation in a system that is larger than one's self, a system that seems to be omnipotent and eternal, allows the individual to repress their death anxiety, and attain immortality literally (i.e., a promise of a soul or immortality) or symbolically (i.e., living on in the mind of the culture - writing the Great Novel, being someone of prominence, being a hero, etc.). Thus, from a TMT analysis, we can see the importance of culture and self-esteem in the face of our existential condition.

Terror Management Research

Drawing from the aforementioned theories, social psychologists have conducted more than 300 empirical studies to date testing TMT hypotheses in several different countries, and in a multitude of different settings (see Burke et al., 2010, for a comprehensive review). One of the most fundamental of these TMT hypotheses is the mortality salience hypothesis (hereafter, MS), which simply states: if culture serves a death denying function, then individuals who are experimentally induced to think of their death should have a greater need to affirm and protect their worldview (worldview defense), and derogate or have disdain for people with a differing worldview. That is, if we are existentially and affectively invested in our death-denying worldviews, then we are inevitably disposed to suspend and defend them dogmatically. These results have been obtained in a multitude of studies cross culturally (Greenberg et al., 1997).

Creatureliness/Animality. Building on the general theory laid out by TMT, several researchers have pushed the idea further, and have begun to look at how our concerns about death factor into our appraisals of the body and human sexuality (Goldenberg, Pyszczynski, Greenberg, & Solomon, 2000), human beings as unique from animals (Goldenberg et al., 2001), disgust reactions (Cox, Goldenberg, Pyszczynski, & Wiese, 2007) and even romantic partner selection (Kosloff, Greenberg, Sullivan, & Wiese, 2010). The general consensus from these studies is that the body is existentially problematic for humans, since it is both the source and place of everything we experience, and the end of all that experience; the fact that we are bodies means that we are always beings towards-death.

Study Hypothesis. Once humans were fully self-aware, physical features such as body hair may have been a potent reminder of human creatureliness (and therefore human vulnerability to death). If this is true, body hair as a physical trait may have been inhibited through sexual selection. Given that the act of sex is also a reminder of human creatureliness (Goldenberg et al., 1999; Landau et al., 2006), it is entirely possible that sexual selection could have led to a reduction in body hair over a relatively short period of time. If this analysis is correct, when people are briefly reminded of their own mortality, they should show stronger sexual attraction to a potential partner with less (vs. more) body hair, in order to distance themselves from their creatureliness and mortality. The research described below was designed to test this hypothesis.

Study (Methods and Design)

Overview. To test our hypothesis, we amassed a variety of pictures of university-age looking men, and manipulated them with Photoshop to look more or less creaturely via four different gradations of body hair (the first gradation being the least hairy, and the fourth being the most hairy). The participants were asked to rate the pictures on several different dimensions of attraction (note: level of attractiveness was controlled for in an earlier pilot study to find the best pictures). The main question of interest was: How sexually attractive is this person?

Participants and design. 77 undergraduate, heterosexual women in introductory psychology at the University of Alberta participated in our study. Participants were randomly assigned to a 2 (MS vs. control) X 2 (body hair level) mixed factorial design. Those in the MS condition were induced to think of their own death, whereas those in the control condition were induced to think about dental pain. Only women were included in this preliminary analysis, since women - historically, socially and biologically - have much more to invest (and therefore to lose) in mate selection than men. Thus, we reasoned they are more likely to drive the sexual selection process.

Participants were told the study was looking at various personality characteristics and their relation to interpersonal attraction. Participants then filled out a personality packet, which contained the MS vs. control (dental pain) manipulation amongst the filler personality questions. After a brief delay, they were then asked to complete the attraction task, which consisted of rating their attraction to various pictures of men with varying levels of body hair.

Results and Discussion

Consistent with our hypothesis, we found that those participants who were reminded of their death significantly preferred hairless models to hairy models, whereas those in the control condition showed no significant preference. Thus, the participants' attraction to potential mates was amenable to existential concerns. When the participants' mortality was salient, they sought to distance themselves from their own animality ("flee the body") by preferring a male model that was "humanized" by virtue of his hairlessness. Thus, it seems that we have fertile preliminary data to tentatively suggest that existential concerns may have played a role in the sexual selection of hairless (or nearly hairless) humans. If, as embodied creatures living in expansive realms of meaning and purposive action, we always seek to deny that which we are, it seems reasonable that these concerns may have plagued the burgeoning human species, and may have (in part, at least) led to the selection of certain human characteristics we see today.

In sum, our preliminary analysis and theorizing suggests that human beings are every bit as existentially motivated, as they are biologically motivated. We are always, as Becker quipped, "angels with anuses": hybrid spiritual-biological beings forever ebbing between the ethereal and mundane; tirelessly creating, expanding, and transcending nature, and yet ultimately, we are still bounded bodies born to die.

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