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Commentary:

TERROR MANAGEMENT THEORY AND EVOLUTIONARY THEORY: PROXIMATE AND ULTIMATE APPROACHES TO UNDERSTANDING HUMAN BEHAVIOR

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Abstract

In the article "*Terror Management and Evolutionary Theory: An Examination of Jealousy Reactions after Mortality Salience*" (see this present issue of JISS) Hackathorn and Cornell (2015) report a study on sex differences in jealousy following a mortality salience prime. Sex differences are amplified following the prime, such that men report more feelings of jealousy in response to imagined sexual infidelity, and women more feelings of jealousy in response to imagined emotional infidelity. Further, the authors resurface the proposed connection between Terror Management Theory (TMT) and Evolutionary Theory (ET), basing both in survival and reproduction. While TMT has amassed evidence of a relationship between acknowledging one's mortality and a plethora of attitudes and behaviors, these relationships hold for an individual's lifetime. ET measures traits in reproduction across lifetimes and is thus on a different timescale. Both theories might be found complementary by recognizing the different levels of examination each represents, and perhaps most fruitfully in conjunction with Life History Theory.

Keywords: Terror Management Theory, Evolutionary Theory, Life History Theory

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COMMENTARY

In their recent article (see this present issue of JISS), Hackathorn and Cornell report on an increase in predicted sex typical responses to infidelity scenarios once participants are made aware of their death, also known as mortality salience (MS). Namely, men report more intense feelings of jealousy in response to sexual infidelity and women more intense feelings in response to emotional infidelity following an MS priming. The finding is intended as an initial bridge between Terror Management Theory (TMT) and evolutionary theory.

Such a connection between TMT and evolutionary theory is presumed by the authors, in part, because of a basis in survival and reproduction. A major tenet of TMT is that when people are made aware of their own eventual death (experiencing mortality salience), they experience predictable emotional and motivational responses. TMT has been explored in conjunction with evolutionary theory by Pzyszcyski and colleagues (see Pyszczynski, Greenberg, & Solomon, 1997 and the commentaries in the same issue; Landau, Solomon, Pyszczynski, & Greenberg, 2007).

Rather than a basis in survival, evolutionary predictions are evaluated in part on a mechanism's effect on reproduction. Those traits that increase one's chances of reproduction are more likely to be passed on and therefore become more representative of groups of individuals. Survival is essentially irrelevant as all individuals die, and unless one reproduces, traits die along with individuals. In recent years, measuring direct reproduction has come under fire as a measure of fitness as human reproduction has not historically been a strong measure of passing traits on for multiple generations (see Betzig, 1998; Crawford, 2000). Until the advent of modern medicine, human history has been punctuated by such high rates of infant and child mortality (see Volk & Atkinson, 2008, for a review) that passing a trait on to offspring has not been a reliable indicator that said trait would be passed on to one's grand-offspring, and so on. Thus, direct fitness – or one's own reproduction – might not even be an effective measure of reproductive success, or the likelihood of trait evolution.

If reproduction alone is a tricky proxy of fitness, then survival is even a poorer proxy. It then becomes tricky to equate survival, important in the proximate-level theory TMT, with reproduction – or reproduction of one's progeny – important in the ultimate-level theory of evolution. In a proximate, immediate sense, a wealth of human behaviors do seem motivated by impending timelines, not just a timeline of mortality. For example, people's perceptions of deadlines can be an important motivator to complete tasks, such as when a deadline for a novel task appears to be nearer than the same deadline for a routine task (Jiga-Boy, Clark, & Semin, 2010).

TMT and evolutionary theory might be complementary in the sense outlined first by Tinbergen (1963); that they represent different boxes in the trait matrix. TMT reflects

proximate mechanisms while evolutionary theory reflects ultimate. Both are important in explaining human behavior, thought, and emotion, but not from the same starting point.

In reviewing responses to infidelity specifically, Hackathorn and Cornell report findings that mortality salience amplifies sex differences in jealousy. Men show greater distress in response to sexual infidelity when made aware of their own death than when they are not; women show greater distress in response to emotional infidelity when made aware of their own death than when they are not. This finding is interesting given the research that shows both sexes are distressed by sexual and emotional infidelity; namely Hackathorn and Cornell show that initial sex differences findings are exacerbated by mortality salience. Perhaps such responses are motivated by an impending timeline – of one's own death – whereas generally the responses might not be so great.

This begs the question of whether there are associations with life history strategy and risk taking – two areas of study that might be appropriate to evaluate a possible complement between TMT and evolutionary theory. Life history strategy, an ultimate theory, examines how cues to either fast or slow reproduction effect the major events in one's life – including mating strategy and parental investment (e.g., Baird, Linton, & Davies, 1986). It intersects with one's likelihood of taking risks, a proximate behavior. Perhaps one's life history strategy is a mediator to how much one's impending death motivates future action.

REFERENCES

Anderson, N. H. (1991). Functional memory in person cognition. *Contributions to Information Integration Theory, 1*, 1-55.

Baird, D. G., Linton, L. R., & Davies, R. W. (1986). Life-history evolution and post-reproductive mortality risk. *Journal of Animal Ecology, 55*, 295-302.

Betzig, L. (1998). No whether to count babies, but which. In C. Crawford and D. L. Krebs (Eds) *Handbook of Evolutionary Psychology: Ideas, Issues, and Applications* (pp. 265-273). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Crawford, C. (2000). Evolutionary psychology: Counting babies or studying information-processing mechanisms. *Annals of the New York Academy of Sciences, 907*, 21-38.

Hackathorn, J., & Cornell, K. (2015). Terror management and evolutionary theory: Examination of jealousy reactions after mortality salience. *Journal of Integrated Social Sciences, 5*(1), 27-39.

Jiga-Boy, G. M., Clark, A. E., & Semin, G. R. (2010). So much to do and so little time: Effort and perceived temporal distance. *Psychological Science, 21*, 1811-1817.

Landau, M. K., Solomon, S., Pyszczynski, T., & Greenberg, J. (2007). On the compatibility of terror management theory and perspectives on human evolution. *Evolutionary Psychology, 5*, 476-519.

Pyszczynski, T., Greenberg, J., & Solomon, S. (1997). Why do we need what we need? A Terror Management Perspective on the roots of human social motivation. *Psychological Inquiry, 8*(1), 1-20.

Tinbergen, N. (1963). On aims and methods of ethology. *Zeitschrift für Tierpsychologie, 20*, 410-433.

Volk, T., & Atkinson, J. (2008). Is child death the crucible of human evolution? *Journal of Social, Evolutionary, and Cultural Psychology, 2*, 247-260.

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