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December 2006 Article of the Month

This month's article selection is by Chaplain John Ehman,
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Zhong, C-B. and Liljenquist, K. "**Washing away your sins: threatened morality and physical cleansing.**" *Science* 313, no. 5792 (September 8, 2006): 1451-1452.

[*Editor's Note: This month's article is available from www.sciencemag.org, with supporting material.*]

This month's featured article--a brief report of four studies at Northwestern University--has received a good bit of attention recently in the popular press (e.g., New York Times, ABC News, National Public Radio, and the *Washington Post*). It has been selected as our Article-of-the-Month because it addresses physical washing as a moral coping mechanism, and this may have relevance for the practical work of chaplains.

SUMMARY: Chen-Bo Zhong (Assistant Professor, University of Toronto) and Katie Liljenquist (PhD Candidate, Northwestern University) used students at Northwestern University "to investigate (i) whether a threat to moral purity activates a need for physical cleansing... and (ii) whether physical cleansing is actually efficacious in helping people cope with moral threats" [p. 1451]. Their four studies, building one upon another in this investigation, used quite clever methodologies to detect participants' tendencies when faced with a morally objectionable memory or written scenario.

Study 1 involved 60 undergraduate students who were asked to recall an ethical or unethical deed of their own. They were then asked to fill in missing letters in word fragments, for example: S _ _ P (which could be made into the cleansing-related word *soap* or a non-cleansing-related word like *step*). "Participants who recalled an unethical deed generated more cleansing-related words than those who recalled an ethical deed" [p. 1451].

Study 2 involved 27 undergraduate students who were asked to hand copy a short story that was written in the first person: some copied a story describing an act of selflessly helping a co-worker, and some copied a story describing an unethical act of sabotaging a co-worker. [The stories are available in supporting materials available on-line.] Participants then engaged in rating the desirability of a variety of consumer products that were either cleansing-related (e.g., Dove shower soap) or non-cleansing-related (e.g., Snickers bars). "As expected, copying the unethical story increased the desirability of cleansing products as compared to copying the ethical story..., with no difference between conditions for the noncleansing products" [p. 1452].

Study 3 involved 32 undergraduate students who, as in the method of Study 1, were asked to recall an ethical or unethical deed of their own. Then they were offered a choice between taking either an antiseptic wipe or a pencil--objects that were "verified in a control condition to be equally attractive" [p. 1452]. Only 37.5% of those who recalled an ethical deed chose the antiseptic wipe, but 75% of those who recalled an unethical deed chose the wipe. [Note: the percentages reported for this study in Table 1 on p. 1451 and in the text on p. 1452

are incorrect and were corrected in a separate erratum to the article in vol. 314, no. 5797 (October 13, 2006): 254.] This study confirmed the findings of Study 2 with a behavioral measure.

Study 4 involved 45 undergraduate students who were specifically asked to recall an unethical deed from their past.

Afterwards, they either cleansed their hands with an antiseptic wipe or not. Then they completed a survey regarding their current emotional state. After completing the survey, participants were asked if they would volunteer without pay for another research study to help out a desperate graduate student. Presumably, participants who had cleansed their hands before being solicited for help would be less motivated to volunteer because the sanitation wipes had already washed away their moral stains and restored a suitable moral self.

As predicted, physical cleansing significantly reduced volunteerism: 74% of those in the not-cleansed condition offered help, whereas only 41% of participants who had a chance to cleanse their hands offered help.... Thus, the direct compensatory behavior (i.e., volunteering) dropped by almost 50% when participants had a chance to physically cleanse after recalling an unethical behavior.

Physical cleansing also influenced participants' emotional state. Based on an exploratory factor analysis, the assessed emotions clustered into two categories: moral emotions (i.e., disgust, regret, guilt, shame, embarrassment, and anger...) and nonmoral emotions (i.e., confidence, calm, excitement, and distress...). As expected, participants who cleansed their hands after the unethical recall reported reduced moral emotions... compared with those who did not.... Hand washing, however, did not influence nonmoral emotions....

The authors conclude: "These four studies document a psychological association between physical and ethical cleanliness: Threats to moral purity activate a need for physical cleansing, which can assuage moral emotions and reduce direct compensatory behaviors" [p. 1452].

COMMENT: Though this research was not with a hospital patient population, it would seem to have implications for hospital chaplains. From my own pastoral encounters, patients regularly contend with "threats to moral purity" (to use the language of the researchers) by recalling unethical/immoral deeds in a life review or confessional context and by their experiences of physical and informational exposure in the institutional setting. Under such circumstances, the research may suggest that some sort of physical cleansing action or ritual may be helpful beyond the typical interpersonal work of the chaplain.

The authors of our article raise the question of whether the action of physical cleansing could "ironically license unethical behavior?" [See p. 1452. Also, the authors note in their *curricula vitae* that they are presently working on an article, "The consequences of cleansing: licensing sins of omission and commission."] If so, might cleansing actions or rituals be dysfunctional if they are pursued prematurely as shortcuts for patients struggling with complex issues? The subject would certainly be worth discussing in chaplaincy circles.

And what of chaplains' own needs for cleansing after working closely with patients whose stories may contain unethical or immoral content? How might chaplains' empathy for patients cause them to appropriate patients' stories in a way similar to the way the students in Study 2 came to take on the scenarios they copied? These are, of course, research questions themselves, and chaplains may find productive partnerships with academic researchers here both as advisors to the study of patients and as subjects themselves.

Suggestions for the Use of the Article for Discussion in CPE:

This is a very short article (two pages), so its assignment could be incorporated easily anytime during a CPE unit. Students could obviously discuss the role of religious cleansing rituals and be challenged to think about how any cleansing action may have moral import for a patient. Also, might there be pastoral circumstances that could lead a chaplain to visit intentionally prior to a patient's planned bathing? Or, how might visiting right *after* a patient has bathed affect the content of the encounter?

The authors discuss the "Lady MacBeth Effect." Have students ever seen indications of this? Also, the article outlines the theory of the mechanism by which physical cleansing may have a compensatory effect on feelings of moral impurity [--see p. 1452], and this mechanism is worth talking through with students.

Related Items of Interest:

I. Zhong and Liljenquist offer a very sparse bibliography, and their five article citations do not note titles. Below are the full citations for the five articles, with abstracts. These are, however, quite technical.

Haidt, J., Rozin, P., McCauley, C. and Imada, S. "**Body, psyche, and culture: the relationship between disgust and morality.**" *Psychology and Developing Societies* 9, no. 1 (January-June 1997): 107-131. [(Abstract:) "Core disgust" is a food related emotion that is rooted in evolution but is also a cultural product. Seven categories of disgust elicitors have been observed in an American sample. These include food, animals, body products, sexual deviance, body-envelope violations, poor hygiene, and contact with death. In addition, social concerns such as interpersonal contamination, and sociomoral violations are also associated with disgust. Cross-cultural analyses of disgust and its elicitors using Israeli, Japanese, Greek and Hopi notions of disgust were undertaken. It was noted that disgust elicitors have expanded from food to the social order and have been found in many cultures. Explanations for this expansion are provided in terms of embodied schemata, which refer to imaginative structures or patterns of experience that are based on bodily knowledge or sensation. A mechanism is suggested whereby disgust elicitors are viewed as a prototypically defined category involving many of the embodied schemata of disgust. It is argued that each culture draws upon these schemata and its social and moral life is based on them.]

Moll, J., de Oliveira-Souza, R., Moll, F. T., Ignacio, F. A., Bramati, I. E., Caparelli-Dáquer, E. M. and Eslinger, P. J. "**The moral affiliations of disgust: a functional MRI study.**" *Cognitive and Behavioral Neurology* 18, no. 1 (March 2005): 68-78. [(From the abstract, p. 68:) ...Thirteen normal adult volunteers were investigated with functional magnetic resonance imaging as they read a series of statements depicting scenarios of pure disgust, indignation, and neutral emotion. After the scanning procedure, they assigned one basic and one moral emotion to each stimulus from an array of six basic and seven moral emotions. Results indicated that (a) emotional stimuli may evoke pure disgust with or without indignation, (b) these different aspects of the experience of disgust could be elicited by a set of written statements, and (c) pure disgust and indignation recruited both overlapping and distinct brain regions, mainly in the frontal and temporal lobes. This work underscores the importance of the prefrontal and orbitofrontal cortices in moral judgment and in the automatic attribution of morality to social events. Human disgust encompasses a variety of emotional experiences that are ingrained in frontal, temporal, and limbic networks.]

Rozin, P., Lowery, L. and Ebert, R. "**Varieties of disgust faces and the structure of disgust.**" *Journal of Personality and Social Psychology* 66, no. 5 (May 1994): 870-881. [(Abstract, from p. 870:) In 3 facial expression identification studies, college students matched a variety of disgust faces to verbally described eliciting situations. The faces depicted specific muscle action movements in accordance with P. Ekman and W. V. Friesen's (1978) Facial Action Coding System. The nose wrinkle is associated with either irritating or offensive smells and, to some extent, bad tastes. Gape and tongue extrusion are associated primarily with what we call core or food-offense disgust and also oral irritation. The broader range of disgust elicitors, including stimuli that remind

humans of their animal origins (e.g., body boundary violations, inappropriate sex, poor hygiene, and death), a variety of aversive interpersonal contacts, and certain moral offenses are associated primarily with the raised upper lip. The results support a theory of disgust that posits its origin as a response to bad tastes and maps its evolution onto a moral emotion.]

Tetlock, P. E., Kristel, O. V., Elson, S. B., Green, M. C. and Lerner, J. S. "**The psychology of the unthinkable: taboo trade-offs, forbidden base rates, and heretical counterfactuals.**" *Journal of Personality and Social Psychology* 78, no. 5 (May 2000): 853-870. [(Abstract, from p. 853:) Five studies explored cognitive, affective, and behavioral responses to proscribed forms of social cognition. Experiments 1 and 2 revealed that people responded to taboo trade-offs that monetized sacred values with moral outrage and cleansing. Experiments 3 and 4 revealed that racial egalitarians were least likely to use, and angriest at those who did use, race-tainted base rates and that egalitarians who inadvertently used such base rates tried to reaffirm their fair-mindedness. Experiment 5 revealed that Christian fundamentalists were most likely to reject heretical counterfactuals that applied everyday causal schemata to Biblical narratives and to engage in moral cleansing after merely contemplating such possibilities. Although the results fit the sacred-value-protection model (SVPM) better than rival formulations, the SVPM must draw on cross-cultural taxonomies of relational schemata to specify normative boundaries on thought.]

Wicklund, R. A. and Gollwitzer, P. M. "**Symbolic self-completion, attempted influence, and self-deception.**" *Basic and Applied Social Psychology* 2, no. 2 (June 1981): 89-114. [(Abstract, from p. 89:) A concept of symbolic self-completion states that people define themselves as musicians, athletes, etc. by use of indicators of attainment in those activity realms, such as possessing a prestige job, having extensive education, or whatever is recognized by others as indicating progress toward completing the self-definition. The self-completion idea postulates that when important symbols—indicators of self-definition—are lacking, the person will strive after further, alternative symbols of the self-definition. In the present research two modes of symbolizing completeness were studied: (1) attempting to influence others directly within the self-definitional area; or (2) simple self-descriptions of one's own performance, such that others would be exposed to those self-descriptions. Two correlational studies showed that the less education (Study 1) or on-the-job experience (Study 2) subjects had, the more they desired to influence others. Experimental subjects (Study 3) who were interrupted while writing a positive, self-descriptive statement manifested stronger influence attempts than did subjects who were allowed to finish. Finally, Study 4 examined self-descriptions as a self-symbolizing effort. Incompleteness was varied by means of a salience-of-past-teacher manipulation. When pressure was placed on subjects to characterize themselves negatively within their respective areas, those for whom a positive teacher was salient were the most willing to be negative. The interpretation of these findings assumes that influencing others, as well as positive self-descriptions, can further the individual's sense of having a complete self-definition.]

II. For basic information about ablution practices in major religions, see the entry for [Ablution](#) from *Wikipedia*. This resource, however, should be consulted with caution, as it is the product of an open-editing online process.