

SENSITIVITY TO DISGUST AND PERCEPTIONS OF NATURAL BODIES OF WATER AND WATERCRAFT ACTIVITIES^{1,2}

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Summary.—A written 7-item self-report scale on sensitivity to disgust and participation in watercraft activities was administered to 450 seasonal park employees. Correlations indicate that nonparticipation in seven different watercraft sports was weakly related with reactions of disgust to contact with natural bodies of water ($r_{pbis} = -.12$ to $-.32$, $p < .01$). Negative affective reactions to contact with natural bodies of water may contribute to panic reactions in watercraft accidents.

Negative reactions to physical contact with natural bodies of water include fear of drowning but may also include reactions of disgust to perceived dirtiness of the water. Disgust is a basic human emotion evoked by the sight or smell of body fluids such as vomit, feces, and mucus. Any object or substance perceptually similar to such stimuli are considered secondary elicitors of disgust (Rozin, Haidt, & McCauley, 1993). Natural bodies of water may contain many secondary elicitors of disgust such as mud, algae, invertebrates, suspended dirt, methane gas, sewage, and other pollutants. Environmental preference studies consistently find a high preference for water-scapes, but viewing natural bodies of water and being in them are different experiences (Porteous, 1996).

As part of a larger study of socialization influences in adoption of recreation activities, a self-report questionnaire was administered to 450 incoming summer employees of a regional park district. The respondents, between the ages of 18 and 35 years, completed questionnaires in groups. Fewer than three percent of incoming employees were absent. Respondents were told that their answers would help in designing effective recreational instruction for children and youth.

A section of the questionnaire measured participation in watercraft activities. Respondents indicated whether they had tried seven different activities (canoe, kayak, jet-ski, motorboat, water-ski, inner tube, sailboat). For canoeing and kayaking, respondents rated each activity in three environments (lakes, rivers, or whitewater).

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Sensitivity to disgust was measured with seven items on a 6-point uni-polar scale (0 to 5). The items referenced experiences commonly encountered around naturally occurring bodies of water (getting swamp water splashed on me, stepping in soft mud over the top of my shoe, getting lake water in my mouth while swimming or splashing, seeing a dead fish floating where I am swimming or wading, lifting a rock covered with algae with my bare hands, stepping in a lake and having gooey mud squeeze through my toes, getting algae in my hair). Internal reliability was excellent (Cronbach alpha = .90). Discriminant validity was based on significant differences between mean scores of college students in aquatic ecology classes and business/management classes ($t = 2.51, p < .01$).

Point-biserial correlations between scores on the disgust scale and having tried each of the seven watercraft activities ranged from $r_{pbis} = -.12$ to $-.32$ ($p < .01$) and suggest sensitivity to disgust in contact with natural bodies of water is related to nonparticipation in watercraft sports. The magnitude of the correlations was small, accounting for about 10% of the common variance. This may be due to a weak measure of participation since respondents only reported whether they had tried an activity at least once. Usually summer employees at parks are people who are at least willing to work outdoors so there may be less variation in comfort outdoors than in a representative sample of the general population.

Consistent with previous research on sensitivity to disgust (Bixler & Floyd, 1999), individuals who are not comfortable in natural bodies of water would probably avoid activities (recreational, career, or educational) that put them into direct contact. Additional work must be done to understand how fear of and disgust with natural bodies of water may be related to environmental preferences. Of practical concern is whether sensitivity to disgust plays a role in panic associated with boating accidents. Industries, such as adventure recreation outfitters or the military, may wish to test swimming skills of potential employees in both clear-water chlorinated swimming pools and natural bodies of water. Swimming lessons should address the student's comfort and competence in swimming pools and natural bodies of water.

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