CONCURRENT SESSION 2 – INSIGHTS AND APPLICATIONS OF SOCIAL SCIENCE TO DECONTAMINATION

Water (De)contamination and the Cultural Construction of Risk in Urban Disadvantaged Unincorporated Communities

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This research examines contrasting ways in which residents and utilities authorities construct risk regarding water quality, contamination, and decontamination in the Tampa Bay Area, Florida. Recent social science research reveals growing numbers of U.S. households with inconsistent or unreliable access to safe and clean water. While much of this research has focused on water contamination in rural and indigenous settings, and occasionally large-scale problems in metropolitan areas (e.g., Flint, MI), new studies are exposing water quality challenges in urban disadvantaged unincorporated communities — high-poverty, high-density residential neighborhoods lying just outside the border of an incorporated municipality. In these predominantly minority neighborhoods that often originate as unregulated subdivisions of unincorporated land, inadequate public investment in housing and water infrastructure has led to a range of water contamination challenges—for those with access to centralized water treatment and delivery systems as well as those reliant on private ground water wells. These challenges have led residents to develop local understandings of risk and uncertainty that contrast with understandings by outside authorities.

This research explores how various stakeholders perceive risk and how these perceptions sometimes lead to misunderstandings, miscommunications, and lack of trust in water quality among residents of the University Area Community located on the northern edge of Tampa, Florida. Drawing on 135 hours of participant observation, 28 rapid field assessments, and 24 in-depth semi-structured interviews with local residents, representatives from area nonprofits, and city and county water utilities staff, our research reveals that water utilities apply a techno-scientific approach to risk in water management. Risk is understood as a phenomenon that can be identified and measured empirically. With this view, “experts” assess, measure, and calculate risk as a probability that can be used to inform decision making. In contrast, local residents’ understanding of risk is often less related to scientifically calculated hazards and is instead a manifestation of broader social and historical processes. For these stakeholders, notions of risk are cultural constructions deeply embedded in the varying ways in which different understandings of purity, pollution, and danger are expressed and experienced by people. In some cases, water is perceived as unclean but not necessarily unsafe per existing regulations while, in other cases, decontaminated water, while safe to drink, may not be seen as drinkable water. These perceptions often lead to tap water mistrust. We argue that to be successful and sustainable, interventions to contaminated water must be socially context-sensitive and must consider the cultural construction of risk.