

Title

Battery-Mouths and Mercury-Breathers: Oral Galvanism and the Onset of Late Modern Swedish Dental Amalgam Controversy

Abstract

Understanding the nature and role of uncertainty is vital to studying processes at the border of science, policy and public life in the risk society. Shackley and Wynne (1996) describe representations of uncertainty as boundary-ordering devices, which structure and uphold modes of science-policy interaction. This paper studies oral galvanism and the origins of the “Third Amalgam War” in Sweden in the late 20th century, highlighting such uses of uncertainty. During the 1980s and 1990s, the issue of potential poisoning from dental amalgam – a widely used, mercury-containing dental filling material – provoked public controversy in many countries. In Sweden, this controversy led to extensive care programs and research efforts, as well as parliamentary and expert panel investigations. At the onset, however, mercury was not the main issue; oral galvanism was. Oral galvanism is an electrochemical phenomenon that occurs when metallic dentures and saliva come together to form a so-called galvanic element – a battery in the mouth. It was this phenomenon that became associated with a variety of symptoms, attracting a growing interest from science, politics and the media during the late 1970s. Poisoning from dental mercury entered the scene in the early 1980s, proposed as the main explanation for discomfort from oral galvanism. This paper details how oral galvanism was established and perceived as an important scientific, social and political problem in Sweden, by examining its international intellectual

history prior to the controversy, as well as its mediated, scientific and political life in Sweden until the early 1980s.

Keywords: dentistry, uncertainty, amalgam, Sweden, galvanism

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