

Comptes rendus / Book Reviews

ARMSTRONG, Elizabeth M. — *Conceiving Risk, Bearing Responsibility: Fetal Alcohol Syndrome and the Diagnosis of Moral Disorder*. Baltimore: Johns Hopkins University Press, 2003. Pp. 277.

Conceiving Risk, Bearing Responsibility: Fetal Alcohol Syndrome and the Diagnosis of Moral Disorder brings a welcome and long overdue critique of the knowledge production in the United States surrounding alcohol use by pregnant women and the diagnostic category of fetal alcohol syndrome (FAS). American researchers first described FAS in the medical literature in 1973, and it is now commonly referred to as the “leading preventable cause of birth defects in the United States”. Fetal alcohol syndrome is marked by four distinct diagnostic criteria: confirmed maternal exposure to alcohol, craniofacial abnormalities, prenatal or postnatal growth deficiencies, and central nervous system anomalies.

Elizabeth Armstrong begins her analysis by drawing attention to specific contradictions between scientific evidence and American public policy relating to alcohol and reproduction. She demonstrates that, on one hand, public policy depicts prenatal alcohol exposure as a common occurrence, all pregnant women who drink alcohol as being equally at risk of giving birth to a baby with FAS, and corresponding rates of FAS as constituting a major public health problem. On the other hand, scientific evidence suggests the risk of FAS is not only rare but highly correlated with a nexus of maternal characteristics that include alcohol use patterns, poverty, smoking, malnutrition, high parity, and advanced maternal age. Underlying the contradictions are a range of gaps in knowledge and uncertainties surrounding the epidemiology and etiology of FAS and related diagnoses, coupled with the difficulties physicians experience such as the lack of unique biological markers to confirm a diagnosis, diagnostic differentiation, and the absence of standardized diagnostic tools and measurements.

Armstrong demonstrates that the path of medical knowledge from nineteenth-century debates focusing on drinking and heredity to present-day ideas about alcohol teratogenesis and FAS has not been a progressive evolution. Rather, medical beliefs about reproduction and alcohol have at different historical junctures in the United States fallen along a spectrum of beliefs, from “harmful, even poisonous, to benign, even beneficial” (p. 15). However, despite shifting perceptions of risk, Armstrong also

points to continuities within medical ideas about reproduction and alcohol and how, similar to ideas of prenatal risk, they too reflect societal beliefs about women's bodies, the role of alcohol in American society, and the relationship between social and biological reproduction. Armstrong illustrates that, in concert with the uncertainties and ambiguities characterizing scientific knowledge and clinical practice, historical and cultural factors contribute significantly to how FAS is understood and acted upon.

Armstrong's focus on constructions of female identity, motherhood, and "maternal-fetal conflict" brings a breath of fresh air to discussions of risk and responsibility, especially because a gender-sensitive lens has virtually been absent from North American debates on prenatal alcohol exposure. She premises her analysis by asking the important question of why American researchers and policy makers responded to the diagnosis FAS by minimizing scientific evidence about who is at risk and by scripting all alcohol use by pregnant women as simultaneously "dangerous" to the fetus and an immoral act of "failed motherhood".

In chapters 2 and 3 Armstrong examines the official knowledge and construction of FAS, pointing to various transformations that occurred in medical thinking about the relationship between alcohol and reproduction and how they were tied to changing views about gender roles and the role of alcohol in American society. Chapter 4 situates the discussion within a clinical context by examining contemporary knowledge and attitudes of physicians practising at teaching hospitals in Philadelphia. Armstrong demonstrates how, within a knowledge context marked by uncertainty and ambiguity, physicians' personal beliefs become codified as clinical knowledge. Doctors "superimposed their own understandings of how the world works, of fairness and suffering, of fortune and misfortune, of human relationships, duties and obligations, as well as their own moral judgments — whether permissive attitudes toward drinking during pregnancy or strict prohibitions against it — on their official understanding of the disorder" (p. 155).

With the emergence of new medical technologies such as fetal imaging and monitoring, knowledge of pregnancy and ideas about the integrity and autonomy of a woman's body have been challenged within and beyond the clinical context. "The fetus" has emerged in medical and popular imagination as a separate individual whose "needs" are commonly perceived to be in direct conflict with that of the pregnant woman. Nowhere is the perception of "maternal-fetal conflict" more evident than within North American discussions of risk and maternal alcohol use.

In her final three chapters, Armstrong offers a counter-narrative to the standardized rhetoric of risk and maternal-fetal conflict found in the United States. She attempts to gauge in chapter 5 "how well the rhetoric of risk in pregnancy corresponds with the reality" by asking two questions: "Which women are at risk of drinking during pregnancy?" and "Which women are most at risk of adverse outcomes for prenatal drinking?" (p. 158). Drawing attention first to various shortfalls that characterize epidemiological research on FAS, Armstrong turns to the 1988 National Maternal and Infant Health Survey to give an alternative reading of the distribution of risk. In an interesting analysis of the survey data, she concludes that the risk of FAS is concentrated in a small group of women (characterized above) and,

while American policies target the vast majority of women, this approach is unnecessary and potentially neglects the populations most adversely affected by prenatal drinking.

In chapters 6 and 7 Armstrong examines the conditions by which this misguided focus emerged within the United States. She concludes that at the heart of American understandings of FAS and the relationship between alcohol and offspring is a larger latent agenda predicated on the preservation of a particular social order and set of institutionalized gender roles and relationships; a denial of collective social responsibility for future generations through the individualizing of blame; dismissal of the role of social inequalities in women's lives; marginalization of the associated risks of maternal drinking and the social suffering that underlies it; and a displacement of risk and responsibility that effectively ignores the societal burden generated by men's drinking, which is vastly greater than that caused by women's drinking. The conflation of risk with immorality provides the conditions for this agenda despite significant medical uncertainty and ambiguity; it is also reflected in the equating of prenatal alcohol exposure with child abuse and evident in American policy responses to FAS that are typically punitive rather than preventative.

Armstrong's analysis provides important insight into questions of risk and responsibility that have direct implications for policy makers. While I would like to believe that her analysis and the direction she lays out for public policy in her final chapter will be a catalyst to mobilize more appropriate supports for women and their children, I see little within American medical or social landscapes to think that this will happen. Policy makers in the United States and North America more generally have invested highly in an individualized approach to FAS prevention as it presents the illusion that broad-based public policies can effectively mobilize action to prevent and treat the physical disorder of FAS. Unfortunately, as Armstrong so convincingly articulates, "this individualized approach ... will never cure either the individual cases of FAS or the social disorder that is at the root of the syndrome" (p. 219).

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BELHOSTE, Bruno — *La Formation d'une technocratie : l'École polytechnique et ses élèves de la Révolution au Second Empire*, Paris, Belin, 2003, 508 p.

In 1848 Victor Hugo saw the *École polytechnique* as a part — along with the *Institut* and the Legion of Honour — of a Holy Trinity of institutions that were as inseparable from the idea of republican France as the tricolour flag. From its foundation in 1794, the school has enjoyed immense prestige and its graduates have populated the upper reaches of the technical administrations of the state, both military and civilian. It naturally attracted impassioned defenders and attackers, and its first history was written as early as 1828 by Ambroise Fourcy. Many of the histories incorporated an agenda of either praising or denigrating the school, and only in the twentieth century