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Are Mothers Hazardous to Their Children's Health?: Law, Culture, and the Framing of Risk

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ARE MOTHERS HAZARDOUS TO THEIR CHILDREN'S HEALTH?: LAW, CULTURE, AND THE FRAMING OF RISK

Linda C. Fentiman*

ABSTRACT

This Article examines the psychosocial processes of risk construction and explores how these processes intersect with core principles of Anglo-American law. It does so by critiquing current cultural and legal perceptions that mothers, especially pregnant women, pose a risk to their children's health. The Article's core argument is that during the last four decades, both American society and American law have increasingly come to view mothers as a primary source of risk to children. This intense focus on the threat of maternal harm ignores significant environmental sources of injury, including fathers and other men, as well as exposure to toxic chemicals, dangerous social environments, poverty, and other multi-factorial contributors to childhood harm. The singular focus on mothers as a source of harm to children is scientifically unfounded and reflects persistent racial, gender, and class stereotypes. It also can lead to poor public policy. Risk that is misunderstood is likely to be met with measures that are both misguided and ineffective.

The Article first explicates the landscape of mothers and risk, contrasting common misperceptions with the hard data on children's health. The Article then considers how and why this distorted view has arisen, relying on new social science research about risk perception and risk communication. Building on that research, the Article examines American legal history and theory, casting a wide net in criminal, environmental, and tort law to demonstrate how core legal doctrine both reflects and reinforces existing sociocultural norms, particularly in the areas of mothers' responsibility for children's health. The Article urges a reengagement with the precautionary principle, based on solid scientific evidence, to improve the health of all of America's children.

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INTRODUCTION

This Article explores the social construction of risk and examines the ways in which the law simultaneously reflects and contributes to that construction. The Article considers risk broadly conceived and the risk of health-related harm to children in particular. Over the last forty years, American society and American law have focused increasingly on mothers as the primary source of risk to children[1] while ignoring many significant environmental sources of harm, including fathers and other men, exposure to toxic chemicals, dangerous social environments, poverty, and other multi-factorial contributors to harm. It appears to be no coincidence that this new, essentialist focus on maternal behavior—what French philosopher Elisabeth Badinter calls the "Assault of Naturalism,"—arose just as the feminist movement was taking off and increasing numbers of women were seeking not only to work outside the home but also to succeed in new spheres of activity.[2] From the time of

[1] This preoccupation may have begun with the April 1965 Life Magazine publication of the first photo of a developing fetus inside the mother's womb, in which the woman was literally erased. Lennart Nilsson, *Drama of Life Before Birth*, LIFE, Apr. 30, 1965, *available at* http://life.time.com/culture/drama-of-life-before-birth-landmark-work-five-decades-later/#1. However, it has expanded in recent decades. *Cf.* Robert Davis, *Spinal Surgery in Womb Tests Faith, Technology*, USA TODAY, Dec. 13, 1999, at D7 (showing photo of the hand of a twenty-two-week-old fetus reaching outside the womb during fetal surgery).

[2] ELISABETH BADINTER, THE CONFLICT: HOW MODERN MOTHERHOOD UNDERMINES THE STATUS OF WOMEN 27-31, 60 (Adriana Hunter trans., 2011).

Rousseau[3] to the current American controversy over whether there is a war on women,[4] it is clear that focusing on mothers as a source of potential harm to their children creates intense pressure for many women to cut back or eliminate a life outside the home, even though doing so may not produce a concomitant gain for children's health.[5]

But that is not the most troubling aspect of the new spotlight on mothers as a source of harm. Most importantly, the singular focus on mothers as the creators of risk is dangerous because it diverts attention and resources from the many more serious threats of harm to children, thereby discouraging actions both to prevent future harm and to impose liability for past harms. Particularly in the Internet age, when much of the media lacks scientific literacy,[6] the likelihood is high that the public will seize upon facile explanations of complex scientific phenomena rather than seeking fuller, if more complex, explanations.[7] Risk that is

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Badinter deplores the emphasis on "[female] biology as the source of all virtue. *Id.*; *see also* DIANE E. EYER, MOTHER-INFANT BONDING: A SCIENTIFIC FICTION 9 (1992) (asserting that the "bonding" theory lacked scientific support).

[3] Badinter asserts that the efforts to "persuade women to return to nature . . . reverting to fundamental values of which maternal instincts are a cornerstone" coincide with a "radical shift" in feminism, biological science, and ecology, in which a small but vocal minority of activists has simultaneously embraced naturalism as an ideological and practical creed. BADINTER, *supra* note 2, at 60-61; *see also* REBECCA KUKLA, MASS HYSTERIA: MEDICINE, CULTURE, AND MOTHERS' BODIES 30-35 (2005) (citing Jean Jacques Rousseau and his idealized view of the "maternal body" as central to Enlightenment thinking and noting that Rousseau's influence persists today). Rousseau asserted that mothers nursing their own infants, rather than leaving it to nursemaids, was the foundation of family stability, and thus of democratic society. PATRICIA R. IVINSKI ET AL., FAREWELL TO THE WET NURSE: ETIENNE AUBRY AND IMAGES OF BREAST-FEEDING IN EIGHTEENTH-CENTURY FRANCE 10 (1998).

[4] This controversy was apparent during the 2012 presidential election, with an intense debate over whether Republican opposition to the renewal of the Violence Against Women Act or opposition to the availability of birth control under the Affordable Care Act reflected a larger attack on women's rights. *See, e.g.*, Robert Pear, *House Vote Sets Up Battle on Domestic Violence Bill*, N.Y. TIMES, May 17, 2012, at A19; Brian Stelter, *Facing Outcry, Limbaugh Apologizes for Attacking Student over Birth Control*, N.Y. TIMES, Mar. 4, 2012, at A18; and Editorial, *The Campaign Against Women*, N.Y. TIMES, May 19, 2012, http://www.nytimes.com/2012/05/20/opinion/sunday/the-attack-on-women-is-real.html.

[5] *See, e.g.*, SUSAN J. DOUGLAS & MEREDITH W. MICHAELS, THE MOMMY MYTH: THE IDEALIZATION OF MOTHERHOOD AND HOW IT HAS UNDERMINED WOMEN 4-6, 22-24 (2004).

[6] *See, e.g.*, Gerd Gigerenzer et al., *Helping Doctors and Patients Make Sense of Health Statistics*, 8 PSYCHOL. SCI. PUB. INT. 53, 65 (2008) (identifying significant rates of "statistical illiteracy" among health and science reporters).

[7] Douglas B. Clark, *Evaluating Media-Enhancement and Source Authority on the Internet: the Knowledge Integration Environment*, 22 INT'L. J. SCI. EDU. 859

misunderstood is likely to be met with measures that are both misguided and ineffective.

This Article will proceed in four parts. Part I will elucidate the current myopic focus on mothers as the source of risk to children's health and contrast common perceptions about the health of America's children with reality. Part II will discuss how and why this distortion has arisen, exploring the social science research on risk perception. Part III will examine the history and nature of American law, and demonstrate how that law both reflects and reinforces existing sociocultural norms. Part IV will comment on the implications of Parts II and III and suggest how the risks to children's health should be reframed in order to develop more effective measures to minimize harm to children.

I. MOTHER'S ROLE IN SHAPING CHILDREN'S HEALTH—RHETORIC VS. REALITY

This Article will explore the multiple contributors to children's health. It will demonstrate that the failure to consider multiple sources of risk to children means in practice that mothers—rather than others—are disproportionately held legally responsible for the protection of their children's health and well-being. Litigation against pregnant women, including criminal prosecutions, tort suits, suits to compel medical treatment, and child neglect proceedings, is relatively rare. However, taken together these proceedings send the message that women must conform to narrowly prescribed norms of maternal behavior in order to meet their legal, as well as moral, obligations. Popular and legal discourse about mothers and children's risk also frequently includes thinly veiled racial and class-based stereotyping about what constitutes a good mother.[8] In these discussions, other sources of risk—both human and environmental—are largely ignored.

A. THE FOCUS ON MOTHERS

Today the media, the medical profession, and the government articulate a wide array of risks (both direct and indirect) that mothers pose to children. Direct risks are seen to arise during pregnancy, and many view women as the sole guarantors of fetal health. Doctors, mainstream news stories, and popular websites like *What to Expect When You're Expecting*[9] urge women to abstain from the use of all drugs, including street drugs, alcohol, nicotine, "unnecessary"

(2000); *cf.* Karen Frost et al., *Relative Risk in the News Media: A Quantification of Misrepresentation*, 87 AM. J. PUB. HEALTH 842, 843-44 (1997).

[8] *See generally, e.g.*, Dorothy E. Roberts, *Unshackling Black Motherhood*, 95 MICH. L. REV. 938, 938-54 (1997).

[9] The website's official name is "WHAT TO EXPECT®," http://www.whattoexpect.com (last visited Aug. 25, 2012).

prescription medications, and sometimes caffeine, in order to provide the safest possible space for prenatal development.[10] Many physicians and health policymakers urge routine testing of all pregnant women for HIV (albeit with the opportunity to opt out), on the theory that if women discover that they are HIV positive they will choose to take anti-retroviral drugs (with potential long-term health effects) to reduce the risk of transmitting HIV to their children.[11] Physicians routinely urge women to agree to Caesarian sections if electronic fetal monitoring (EFM) points to fetal distress, despite the fact that EFM is an extremely poor predictor of actual fetal distress and that Caesarian sections have higher rates of maternal and infant death and post-birth complications for mother and child than vaginal deliveries.[12] When considered in isolation,

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[10] *See, e.g.*, American Academy of Pediatrics, Work Group on Breastfeeding, *Breastfeeding and the Use of Human Milk*, 100 PEDIATRICS 1035, 1035 (1997) [hereinafter 1997 AAP Breastfeeding Policy Statement]; American Academy of Pediatrics, Section on Breastfeeding, *Breastfeeding and the Use of Human Milk*, 129 PEDIATRICS e827, e832-33 (2012) [hereinafter 2012 AAP Breastfeeding Policy Statement]; DAN STEINBERG & SHELLY GEHSHAN, NAT'L CONF. OF STATE LEGISLATURES, STATE RESPONSES TO MATERNAL DRUG AND ALCOHOL USE: AN UPDATE (2000); Janet R. Hankin, *Fetal Alcohol Syndrome Prevention Research*, 26 ALCOHOL RES. & HEALTH 58, 58-59 (2002); Steven J. Ondersma et al., *Prenatal Drug Exposure and Social Policy: The Search for an Appropriate Response*, 5 CHILD MALTREATMENT 93, 95-97 (2000); Denise Grady, *Pregnancy Problems Tied to Caffeine: Long-Held Concerns About Miscarriages Are Focus of New Study*, N.Y. TIMES, Jan. 21, 2008, at A10.

[11] Bernard M. Branson et al., *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings*, MMWR RECOMMENDATIONS & REP., Sept. 22, 2006, at 1, *available at* http://www.cdc.gov/mmwr/PDF/rr/rr5514.pdf. Only about 100 American children are born HIV+ each year, due to transmission during pregnancy and birth or breastfeeding, compared to about 1300 children twenty years ago. Donald G. McNeil Jr., *New H.I.V. Cases Remain Steady over a Decade*, N.Y. TIMES, Aug. 4, 2011, at A16; Jason Beaubien, *Botswana's 'Stunning Achievement' Against AIDS*, NPR, July 9, 2012, http://www.npr.org/2012/07/09/156375781/botswanas-stunning-achievement-against-aids.

[12] Ken L. Bassett et al., *Defensive Medicine During Hospital Obstetrical Care: A By-Product of the Technological Age*, 51 SOC. SCI. & MED. 523, 530 (2000) (citing research showing that electronic fetal monitoring has not proven better than nurses using stethoscopes in identifying fetuses at risk of oxygen deprivation ("fetal distress"), although it has led to greatly increased rates of cesarean section); *see also* Catherine Deneux-Tharaux et al., *Postpartum Maternal Mortality and Cesarean Delivery*, 108 OBSTETRICS & GYNECOLOGY 541 (2006). Caesarian section rates have climbed from about 5% in the mid-1960s to nearly 33% in 2009. *See, e.g.*, Nancy K. Rhoden, *The Judge in the Delivery Room: The Emergence of Court-Order Cesareans*, 74 CALIF. L. REV. 1951, 1955 (1986); Helen I. Marieskind, *Cesarean Section in the United States: Has It Changed Since 1979?*, 16 BIRTH 196, 196 (1989); Joyce A. Martin et al., *Births: Final Data for 2009*, NAT'L VITAL STAT. REP., Nov. 3, 2011, at 1, 1-2, *available at* http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_01.pdf.

each of these efforts to persuade pregnant women to engage in risk-minimizing behaviors might appear as positive examples of the precautionary principle in action,[13] or even as evidence of an emerging norm of care that prospective mothers should embrace.

However, these efforts are not simply isolated recommendations made by the media, family members, or health care professionals. Instead, they provide the foundation for a variety of legal enforcement actions. At the "minor" end of the spectrum of legal interventions, more than half of the states have laws preventing women's advance medical directives from being carried out when the woman is pregnant.[14] At the other, clearly "major" end of the spectrum, pregnant women who consume both illegal and *legal* drugs may be criminally prosecuted. In addition, many states have enacted laws authorizing the civil commitment of drug-using pregnant women. Further, in a number of celebrated cases, when women have refused to give informed consent to proposed medical interventions, physicians have obtained court orders for the women to be hospitalized and to undergo Caesarian sections or other medical treatment, all in the name of protecting fetal health.[15] Even normal human activity does not escape legal scrutiny. In 2010, a pregnant woman in Iowa was arrested for attempted feticide after she fell down the stairs and told emergency room workers that she was not sure she wanted to have her baby because her husband had recently abandoned her and her two young children.[16]

Post-birth, mothers are asserted to threaten even more harm, both directly (e.g., by transmitting dangerous substances via breastfeeding)[17]

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[13] See discussion of the precautionary principle in its varying incarnations, *infra* Part III.C.

[14] Amy Lynn Jerdee, Note, *Breaking Through the Silence: Minnesota's Pregnancy Presumption and the Right to Refuse Medical Treatment*, 84 MINN. L. REV. 971 (2000).

[15] Linda C. Fentiman, *The New "Fetal Protection": The Wrong Answer to the Crisis of Inadequate Health Care for Women and Children*, 84 DENV. U. L. REV. 537, 568-69 (2006) (citing cases); *see also* Burton v. State, 49 So. 3d 263 (Fla. Dist. Ct. App. 2010) (overturning decision of a trial judge that because a woman had failed to follow her physician's recommendations her pregnancy was therefore "high risk" and holding that hospitalization was necessary to ensure compliance with the physician's orders).

[16] The state ultimately decided not to prosecute. John Mangalonzo, *Feticide Charges Dropped; New Information About Pregnancy Emerges*, HAWKEYE, Feb. 11, 2010, http://www.thehawkeye.com/story/Fetus-death-021110 (explaining that prosecutors decided not to pursue the case because the fetus was not old enough to be viable).

[17] Worldwide, though *not* in the United States, breastfeeding accounts for about one-seventh of all new HIV infections. Donald G. McNeil Jr., *Clinton Aims for 'AIDS-Free Generation,'* N.Y. TIMES, Nov. 9, 2011, at A16.

and indirectly (e.g., by choosing *not* to breastfeed or by failing to protect a child from another's abuse, especially sexual and physical violence). Government intervention is more likely once children are born than during pregnancy, reflecting the common law's drawing of a bright line at birth.[18] In the first decade of this century, the federal government launched a major campaign to encourage new mothers to breastfeed, even while resisting changes in employment law to make it more reasonable for working women to do so.[19] In 2012, New York City launched a voluntary program, called "Latch On NYC," in which all participating New York hospitals treat formula as a drug that will only be available to new mothers with an approved "medical reason."[20] In medical journals and the popular press, women who choose not to breastfeed exclusively for six months are portrayed as risking their children's health as well as cognitive and intellectual development,[21]

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[18] *See, e.g.*, Commonwealth v. Morris, 142 S.W.3d 654, 655-61 (Ky. 2004) (describing the common law "born alive rule," which prohibited criminal prosecution for homicide in the case of a fetus which was injured in utero and not born alive and abrogating it prospectively). Courts in Canada, drawing on the same common law tradition, continue to view birth as a bright line, precluding both criminal and tort actions based on the actions of the pregnant woman or a third party which cause death or injury to a fetus. Regina v. Sullivan, [1991] 1 S.C.R. 489 (Can.) and Regina v. Drummond, [1996] 143 D.L.R. 4th 368 (Can. Ont. Ct. J.), and Dobson v. Dobson, [1999] 2 S.C.R. 753 (Can.).

[19] In 2004, the Bush Administration launched a national advertising campaign targeted at first time parents "who would not normally breastfeed their baby." U.S. DEP'T HEALTH & HUMAN SERVS., NATIONAL BREASTFEEDING CAMPAIGN, http://www.womenshealth.gov/breastfeeding/programs/nbc/index.cfm (last visited Feb. 23, 2010). Meanwhile, Congress repeatedly rejected proposals to accommodate nursing women at work. See, for example, Breastfeeding Promotion Act of 2007, H.R. 2236, 110th Cong. §102 (2007), which would have amended § 701(k) of the Civil Rights Act of 1964: (1) by inserting "(including lactation)" after "childbirth" [as one of the conditions considered a basis for sex discrimination under Title VII], and (2) by adding at the end the following: "For purposes of this subsection, the term 'lactation' means a condition that may result in the feeding of a child directly from the breast or the expressing of milk from the breast." This or similar legislation was introduced by Representative Carolyn Maloney in every session of Congress since 1998. Not until the Patient Protection and Affordable Care Act (hereinafter referred to as the Affordable Care Act or ACA) was enacted and signed into law by President Obama in 2010 did federal law require employers of more than fifty employees to provide nursing mothers with private lactation rooms and the ability to take time to pump at work. Pub. L. No. 111-148, § 4207, 124 Stat. 119, 577-78 (2010).

[20] Press Release, N.Y.C. Dep't of Health and Mental Hygiene, Latch on NYC, *available at* http://www.nyc.gov/html/doh/downloads/pdf/ms/initiative-description.pdf (last visited Aug. 7, 2012).

[21] *See* Alissa Quart, *The Milk Wars*, N.Y. TIMES, July 14, 2012, (Sunday Opinion), at 9; 2012 AAP Breastfeeding Policy Statement, *supra* note 10, at e828-31.

though there is strikingly little data showing that breastfeeding leads to the claimed positive health outcomes.[22] Many of the studies linking breastfeeding with positive health outcomes are equivocal, showing at most association rather than causation. In fact, one study purporting to find that infants who were formula-fed are more likely to die from accidents than breastfed babies (a finding which lacks a plausible biological mechanism) acknowledged that the constellation of attributes belonging to women who *choose* to breastfeed, rather than breastfeeding itself, may be the true cause of the asserted health benefits.[23]

B. THE MALE CONTRIBUTION TO CHILDREN'S HEALTH

While the government, media, and the medical profession have ramped up the focus on mothers as the source of harm to children, most popular and professional risk assessments, as well as legal authorities, omit any discussion of the very real ways in which fathers can adversely affect children's health and well-being.[24] This is not merely an issue of gender parity. Men contribute to impaired fetal development through workplace exposure to toxic chemicals, which can lead to defective sperm, miscarriages, stillbirths, and other negative birth outcomes.[25] Men who smoke while their partners are pregnant pose risks to their children's health; such smoking correlates with stillbirths, low birth

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[22] *See, e.g.*, Joan B. Wolf, *Is Breast Really Best? Risk and Total Motherhood in the National Breastfeeding Awareness Campaign*, 32 J. HEALTH POL. POL'Y & L. 595, 600-01, 615-17, 620-22 (2007) (criticizing the quality of the data on the benefits of breastfeeding); *see also* Amy Tuteur, *Weaponizing Breasts*, THE SKEPTICAL OB (July 15, 2012), http://skepticalob.blogspot.com/2012/07/weaponzing-breasts.html (noting that the data on the advantages of breastfeeding are weak "and not particularly clinically relevant").

[23] Linda C. Fentiman, *Marketing Mothers' Milk: The Commodification of Breastfeeding and the New Markets for Breast Milk and Infant Formula*, 10 NEV. L.J. 29, 46-49 (2009); *see also* BADINTER, *supra* note 2, at 71. Nonetheless, public health officials continue to make broad claims about the breastfeeding's benefits for a multitude of childhood and adult illnesses**.** *See, e.g.*, Press Release, N.Y. State Dep't of Health, State Health Commissioner Cites Obesity Prevention, Nutrition Benefits of Breastfeeding (Apr. 8, 2011), *available at* https://www.health.ny.gov/press/releases/2011/2011-04-08_breastfeeding_benefits.htm.

[24] An exception is Sylvia Law, *Rethinking Sex and the Constitution*, 132 U. PA. L. REV. 955, 996-97 (1984) (criticizing the Supreme Court's conflation of biological differences with responsibility for nurturing children).

[25] In one leading case, *International Union, UAW v. Johnson Controls, Inc.*, 499 U.S. 187 (1991), the Supreme Court held that employers violate Title VII of the Civil Rights Act of 1964 when they adopt "fetal protection policies" which preclude fertile women, but not fertile men, from working in areas that pose potential hazards (such as lead exposure) to fetuses and children.

weight, and congenital malformations.[26] Fathers also contribute to the risk that their children will suffer from autism due to genetic mutations, which increase with the father's age and through epigenetic changes that are just beginning to be understood.[27] Further, pregnant women have the potential to transmit HIV to their newborns, but most of these women become HIV positive through their male sexual partners.[28] These men frequently resist the use of condoms, which would prevent the transmission of HIV as well as other sexually transmitted diseases.[29]

Most importantly, physical abuse by men is a significant source of childhood injury and death. Male sexual and physical abuse of children, particularly girls, is a major contributor to their development of physical and mental illnesses and substance abuse problems.[30] Many of these girls later become involved in intimate relationships with a batterer who also subjects them to sexual and physical abuse, much as they

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[26] Jo Leonardi-Bee et al., *Secondhand Smoke and Adverse Fetal Outcomes in Nonsmoking Pregnant Women: A Meta-analysis*, 127 PEDIATRICS 734 (2011), *available at* http://pediatrics.aappublications.org/content/127/4/734.full.pdf (analyzing effects of secondhand smoke, including smoke from fathers).

[27] *See, e.g.*, Benedict Carey, *Study Finds Risk of Autism Linked to Older Fathers*, N.Y. TIMES, Aug. 23, 2012, at A1; Judith Shulevitz, *Why Fathers Really Matter*, N.Y. TIMES, Sept. 9, 2012, at SR 1; Benjamin M. Neale et al., *Patterns and Rates of Exonic* De Novo *Mutations in Autism Spectrum Disorders*, 485 NATURE 242 (2012); Stephen J. Sanders et al., De Novo *Mutations Revealed by Whole-Exome Sequencing Are Strongly Associated with Autism*, 485 NATURE 237 (2012); and Brian J. O'Roak et al., *Sporadic Autism Exomes Reveal a Highly Interconnected Protein Network of* De Novo *Mutations*, 485 NATURE 246 (2012).

[28] According to the CDC, "Most women are infected with HIV through heterosexual sex." CDC, HIV AMONG WOMEN, http://www.cdc.gov/hiv/topics/women/ (last visited Aug. 23, 2012).

[29] Press Release, N.Y. Academy of Medicine, Study in Academy's Journal of Urban Health Finds Condom Use Lagging in HIV Positive Injection Drug Users (Oct. 9, 2007), http://www.nyam.org/news/press-releases/2007/2977.html.

[30] In one study, eighty-four percent of women seeking substance abuse treatment had a history of violent assault or PTSD. Susan R. B. Weiss et al., *Emerging Issues in Gender and Ethnic Differences in Substance Abuse and Treatment*, 3 CURRENT WOMEN'S HEALTH REP. 245, 247 (2003). In a study of twins in the general population, women who had experienced sexual abuse as girls were three times more likely to become alcohol- or drug-dependent as adults. Patrick Zickler, *Childhood Sex Abuse Increases Risk for Drug Dependence in Adult Women*, NIDA NOTES, Apr. 2002 (citing K.S. Kendler et al., *Childhood Sexual Abuse and Adult Psychiatric and Substance Abuse Disorders in Women: An Epidemiological and Co-Twin Control Analysis*, 57 ARCHIVES OF GEN. PSYCHIATRY 953-59 (2000)); *see also* Lisa Najavits et al., *The Link Between Substance Abuse and Posttraumatic Stress Disorder in Women: A Research Review*, 6 AM. J. ON ADDICTIONS 273, 274 (1997) (citing rates of PTSD among female substance abusers ranging from 30 to 59%).

experienced in childhood.[31] Although violent crime has decreased overall since the mid-1990s, rates of intimate partner violence have remained stable since the beginning of the twenty-first century, and rates of child abuse continue to be high.[32]

C. THE GOVERNMENT'S ROLE IN PROTECTING CHILDREN'S HEALTH—OR NOT

Historically, the American legal system has maintained a deep skepticism about government intervention to protect individual members of a family, especially children, from the dangerous actions and omissions of an adult family member.[33] This skepticism reflects the value Americans place on protecting individual liberty, as demonstrated by the Framers' inclusion of an enumerated set of freedoms from government action in the Constitution (embodied in the Bill of Rights) or

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[31] *See, e.g.*, SHEIGLA MURPHY & MARSHA ROSENBAUM, PREGNANT WOMEN ON DRUGS: COMBATING STEREOTYPES AND STIGMA 50-52, 58-61 (1999); Wendy Chavkin, *Enemy of the Fetus? The Pregnant Drug User and the Pregnancy Police*, HEALTH/PAC BULL., Winter 1992, at 9 (noting that one study found that in a group of 146 female drug users, "over half had been sexually abused. . . . There was a clear-cut statistical association among a history of sexual abuse, the severity of drug use, and the likelihood that the woman would be involved as an adult with a man who coercively urged continued drug use."); Diane M. Morrison et al., *Beliefs About Substance Abuse Among Pregnant and Parenting Adolescents*, 8 J. RES. ON ADOLESCENCE 69, 92 (1998) (discussing how boyfriends influence the behavior of teenage pregnant drug users).

[32] SHANNAN CATALANO, BUREAU OF JUST. STATS., INTIMATE PARTNER VIOLENCE, 1993-2010, at 1 (2012) (discussing trends in violence committed by current or former spouses, boyfriends, or girlfriends, against their partners and stating that 80% of the victims of intimate partner violence were female); *see also* ANDREA J. SEDLAK ET AL., ADMIN. FOR CHILDREN AND FAMILIES, FOURTH NATIONAL INCIDENCE STUDY OF CHILD ABUSE AND NEGLECT (NIS-4) (2009-10): REPORT TO CONGRESS 5 (2010) (noting that, using stringent criteria, more than 1.25 million children experienced maltreatment during the 2005-06 study year, and that approximately 44% of these children suffered physical abuse and 10-11% suffered sexual abuse).

[33] For many years, the Supreme Court effectively declared an "enforcement-free" zone around families, leaving parents alone to make decisions about child-rearing, including instruction in religion and language and civil commitment. *See, e.g.*, Parham v. J.R., 442 U.S. 584 (1979); Pierce v. Soc'y of Sisters, 268 U.S. 510 (1925); Meyers v. Nebraska, 262 U.S. 390 (1923). Although all states have established child protection systems that seek to prevent child abuse and neglect, these systems are frequently criticized for their inadequate funding, insufficient vigilance, disproportionate focus on children and families of color, and failure to provide necessary supports early enough to prevent parent-child separation, particularly among poor families. *See* Dorothy E. Roberts, *Is There Justice in Children's Rights?: The Critique of Federal Family Preservation Policy*, 2 U. PA. J. CONST. L. 112 (1999).

by more recent statements by Tea Party activists and others that government should not interfere with individual economic activities.[34]

The Supreme Court has twice rejected efforts to impose liability on the government for failing to intervene to protect children at risk of harm from a physically abusive father. In 1989, the Court decided *DeShaney v. Winnebago County Department of Social Services*.[35] In that case, the Court held that a government social service agency did not unconstitutionally deprive a young child of a protected liberty interest when it failed to prevent his father's severe beatings, even though the social service workers had been told repeatedly about the risk of harm.[36] Sixteen years later, the Court decided *Gonzales v. Town of Castle Rock*.[37] There, the Court held that police did not violate due process when they failed to respond to calls to enforce a restraining order against a battering husband and father who ultimately murdered his three daughters.[38]

In 2012, the Inter-American Commission on Human Rights reviewed the merits of *Gonzales* and determined that the United States (representing the Castle Rock Police Department) had violated the human rights of Jessica Gonzales (now Lenahan) and her three children by failing to act with due diligence to protect them from domestic violence.[39] Although the Commission's decision is not directly legally enforceable,[40] its opinion may affect public policy because it also

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[34] The Tea Party Patriots and other Tea Party groups cite freedom from government intervention in markets as one of their core principles. *See, e.g.*, *About Tea Party Patriots*, TEA PARTY PATRIOTS, http://www.teapartypatriots.org/about/ (last visited Aug. 23, 2012); *About Us*, CITIZENS FOR CONSTITUTIONAL LIBERTIES: HOME OF THE WAYNE COUNTY TEA PARTY, http://citizensforconstitutionalliberties.org/about.html (last visited Aug. 23, 2012).

[35] 489 U.S. 189 (1989).

[36] *Id.* at 203. Occasionally lower courts have reached different conclusions. *See, e.g.*, Anderson v. Neb. Dep't of Soc. Servs., 538 N.W.2d 732, 738-39 (Neb. 1995) (affirming a trial court's determination that when the Department of Social Services knew, but failed to disclose, that a potential foster parent had a history of sexual and physical abuse, it was negligent and therefore liable for the sexual abuse committed by that parent).

[37] 545 U.S. 748 (2005).

[38] *Id.* at 766-68.

[39] Lenahan (Gonzales) v. United States, Case 12.626, Inter-Am. Comm'n H.R., Report No. 80/11 (2011). The Commission found that the police department's actions denied the girls and their mother the right to equality before the law, the right to judicial protection, and in the case of the three girls, the right to life. *Id.* ¶ 5.

[40] PHILIP ALSTON & RYAN GOODMAN, INTERNATIONAL HUMAN RIGHTS: TEXT AND MATERIALS 978, 982-84 (2013).

identified systemic failures of American law enforcement authorities, including the courts and police.[41]

D. ENVIRONMENTAL CONTRIBUTIONS TO CHILDREN'S HEALTH

As American courts have limited the government's obligation to protect particular children at risk of harm from human actors, particularly violent males, the state has also been slow to protect against environmental hazards to children's health. These dangers are well known and include indoor and outdoor air pollution, contaminated drinking water, and toys and household utensils that contain hazardous materials.[42]

Additionally, less visible hazards that lurk in deteriorated housing and poor neighborhoods present troubling implications for children's health.[43] For example, children who live in dilapidated housing are frequently exposed to heavy metals, including lead that causes major cognitive and behavioral impairments.[44] Poor children often suffer from the presence of vermin in living spaces, like cockroaches that may

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[41] *Id.* at 43-44.

[42] For example, controversies have recently emerged over high lead levels found in some toys and the concern that infant feeding bottles, water bottles, and other household products contain bisphenol A (BPA), an endocrine disrupter which is asserted to cause neurological damage and other problems in children. *See, e.g.*, Russell T. Gips, *To China with Lead: The Hasty Reform of the Consumer Product Safety Commission*, 46 HOUS. L. REV. 545 (2009); Philip J. Landrigan et al., *Environmental Justice and the Health of Children*, 77 MT. SINAI J. MED. 178, 183-84 (2010); Nicholas D. Kristof, Op-Ed., *Big Chem, Big Harm?*, N.Y. TIMES, Aug. 26, 2012, (Sunday Review), at 11; U.S. FOOD AND DRUG ADMIN., BISPHENOL A (BPA): USE IN FOOD CONTACT APPLICATION (2010), http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm064437.htm (last visited Oct. 13, 2013).

[43] ELIZABETH HARRISON ET AL., JOHNS HOPKINS BLOOMBERG SCHOOL OF PUBLIC HEALTH, ENVIRONMENTAL TOXICANTS AND MATERNAL AND CHILD HEALTH: AN EMERGING PUBLIC HEALTH CHALLENGE 1-2 (2009), *available at* http://www.jhsph.edu/research/centers-and-institutes/womens-and-childrens-health-policy-center/publications/ Environ_Tox_MCH.pdf.

[44] Kim M. Cecil et al., *Decreased Brain Volume in Adults with Childhood Lead Exposure*, 5 PLOS MED. 741 (May 2008), *available at* http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.0050112; Deborah W. Denno, *Considering Lead Poisoning as a Criminal Defense*, 20 FORDHAM URB. L.J. 377, 396 (1993); Montrece McNeill Ransom et al., *Toward Eradication: How Law and Public Health Practices Can Be Used to Prevent Childhood Lead Poisoning*, 22 TUL. ENVTL. L.J. 1, 2-7 (2008); Karen Bouffard, *Lead Poisoning Declines*, DETROIT NEWS, Jan. 31, 2009, at A3.

contribute to asthma.[45] They are also likely to live in polluted neighborhoods and to be exposed to pesticides used to reduce infestations and to toxins brought home by parents and siblings working in hazardous jobs.[46] Simultaneously, children who live in impoverished neighborhoods lack safe places to play and access to affordable and healthy food,[47] and are exposed to physical danger and psychological stress. Some environmental risks are shared by all children, but many risks are localized. Children who live near pollution sources such as coal burning power plants, inhabit substandard housing, or eat greater-than-average amounts of locally-caught fish are all at special environmental risk.[48]

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[45] Virginia Rauh et al., *Deteriorated Housing Contributes to High Cockroach Allergen Levels in Inner City Households*, 110 ENVTL. HEALTH PERSP. 323 (2002), *available at* http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1241179/.

[46] COMM'N FOR ENVTL. COOPERATION, TOXIC CHEMICALS AND CHILDREN'S HEALTH IN NORTH AMERICA 5 (2006), *available at* http://www.cec.org/Storage/59/5221_CHE_Toxics_en.pdf.

[47] *See, e.g.*, Michele Ver Ploeg et al., *Mapping Food Deserts in the United States*, U.S. DEP'T AGRIC. (Dec. 1, 2011), http://www.ers.usda.gov/amber-waves/2011-december/data-feature-mapping-food-deserts-in-the-us.aspx.

[48] Coal-fired power plants are the largest single source of mercury emissions. EPA, 2005 NATIONAL EMISSIONS INVENTORY DATA & DOCUMENTATION (2005), http://www.epa.gov/ttn/chief/net/2005inventory.html; *see also* 77 Fed. Reg. 71,329 (Nov. 30, 2012). In a 2005 study the Environmental Protection Agency (EPA) found that power plants account for about 50% of total U.S. manmade mercury emissions. EPA, *supra*. Other large sources are industrial boilers (about 7% of U.S. mercury emissions), burning hazardous waste (about 4%), and electric arc furnaces used in steelmaking (also about 7%). *Id*. EPA estimated that about one quarter of U.S. emissions from coal-burning power plants are deposited within the contiguous U.S. and the remainder enters the global cycle. *Id.* Similarly, a large proportion of the mercury emissions to which American children are exposed come from other nations, particularly China. EPA, *Mercury Emissions: The Global Context*, INTERNATIONAL PROGRAMS, http://www.epa.gov/international/toxics/mercury/mercury_context.html (last accessed Jan. 3, 2014). Burning municipal waste and medical waste was once a larger source of emissions, "but as a result of EPA and state regulations and reductions in mercury use, emissions from these sources have declined 85-90 percent." *See* EPA, *What Are the Biggest Sources of Mercury Air Emissions in the U.S.?*, FREQUENT QUESTIONS, http://publicaccess.supportportal.com/link/portal/23002/23012/Article/21198/What-are-the-biggest-sources-of-mercury-air-emissions-in-the-U-S (last accessed Jan. 3, 2014); *see also* Pamela D. Harvey & C. Mark Smith, *The Mercury's Falling: The Massachusetts Approach to Reducing Mercury in the Environment*, 30 AM. J.L. & MED. 245, 263-67 (2004). Children living in substandard housing disproportionately suffer the effects of lead poisoning. *See, e.g.*, Ransom et al., *supra* note 44, at 7-8. Children who live in agricultural communities are frequently exposed to pesticides through the air, soil, and water in which they play, as well as through

E. THE HEALTH OF AMERICA'S CHILDREN, COMPARATIVELY SPEAKING

Despite heightened concern about children's health today, America's youth are quite healthy, viewed in historical context.[49] The life expectancy rate for children born in the United States has never been better.[50] In contrast, at the beginning of the twentieth century, the likelihood that a child born in America would die due to illness or injury was quite high. One-fifth of all children died before the age of five, many before their first birthday. Even at mid-century, the risk of a child dying from an epidemic disease was alarmingly real. In the year 1950 alone, more than 4000 Americans died from diseases that are now preventable by vaccines.[51] Today, the risk of childhood death in the United States is low. This achievement is the result of a combination of factors, including basic sanitary interventions,[52] the enactment of child

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their parents' workplace exposure, which is compounded when they bring clothing and tools home from work. HARRISON ET AL., *supra* note 43, at 2-4.

[49] American children are, however, less healthy (on average) than their peers in other developed nations. *See* data discussed *infra* note 59.

[50] Kenneth D. Kochanek et al., *Deaths: Preliminary Data for 2009*, NAT'L VITAL STAT. REP., MAR. 16, 2011, at 1, 3, *available at* http://www.cdc.gov/nchs /data/nvsr/nvsr59/nvsr59_04.pdf (noting that a baby born in 2009 can expect to live 78.2 years, the longest life expectancy for American children ever projected). Indeed, rather than children facing significant risks of disease and death, today most Americans die from diseases developed in response to environmental risk sources, including tobacco, diet and inactivity, and alcohol, leading to death from cardiovascular disease, cancer, stroke, and chronic lung disease. These causes of death are followed in much lower numbers by microbial and toxic agents, motor vehicles and firearms, risky sexual behavior, and illegal drug use. However, poverty and low educational attainment are strong predictors of earlier mortality and higher disease incidence. Ali H. Mokdad et al., *Actual Causes of Death in the United States, 2000*, 291 JAMA 1238 (2004).

[51] CDC, EPIDEMIOLOGY AND PREVENTION OF VACCINE-PREVENTABLE DISEASES G-1, G-3, G-7 (William Atkinson et al. eds., 12th ed. 2011) [hereinafter CDC VACCINE TEXTBOOK]. Some readers will recall firsthand the fear of polio in the 1940s and 50s, or, after reading Philip Roth's compelling account of a fictional polio epidemic in his novel *Nemesis*, have a sense of the way in which fear of this devastating disease animated the public's imagination. PHILIP ROTH, NEMESIS (2010). Similarly, during the 1940s, before a vaccine against pertussis became available, there were more than 200,000 cases of pertussis each year. CDC VACCINE TEXTBOOK, *supra*, at 215. *See generally* Donald G. McNeil, Jr., *Sharp Drop Seen in Deaths from Ills Fought by Vaccine*, N.Y. TIMES, Nov. 14, 2007, at A18.

[52] These include milk pasteurization, sewage treatment, and a clean public water supply. CDC, *Achievements in Public Health, 1900-1999: Healthier Mothers and Babies*, 48 MORBIDITY & MORTALITY WKLY. REP. 849 (1999) [hereinafter *Achievements in Public Health*].

labor laws,[53] the discovery of antibiotics, the development of effective treatment for some childhood cancers, and the development of vaccines for almost all childhood illnesses.[54] A recent study found that for nine of thirteen diseases now preventable by vaccination, death rates fell by more than ninety percent from their twentieth-century heights.[55]

Compared to the beginning and middle of the twentieth century, Americans now have fewer children and give birth to them later.[56] Today, most parents expect that their children will survive to attain a healthy adulthood. It is simply no longer accepted that some children

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[53] Notably, some of these early public health innovations are attributable to women's activism. Grant Miller, *Women's Suffrage, Political Responsiveness, and Child Survival in American History*, 123 Q. J. ECON. 1287, 1288-91 (2008) (noting that the enactment of legislation aimed at protecting children's health and welfare can be directly connected to women attaining the right to vote at the state and federal level).

[54] Widespread use of antimicrobial agents such as sulfonamide and penicillin contributed to significant declines in infant mortality from 1930 to 1949. *Achievements in Public Health*, *supra* note 52. Despite a continuing trend of an increased incidence in childhood cancer, mortality rates declined 1.3% from 2004 to 2008. CDC, ANNUAL REPORT TO THE NATION ON THE STATUS OF CANCER (2012), *available at* http://www.cdc.gov/Features/dsCancerAnnualReport/.

[55] Kochanek et al., *supra* note 50 (noting that a baby born in 2009 can expect to live 78.2 years, the longest life expectancy for American children ever projected). For smallpox, diphtheria, and polio the reduction in mortality was 100%. For four other diseases, for which vaccination was developed much more recently—hepatitis A and B, invasive pneumococcal disease, and varicella—the decline was less than 90%. *Id.* Infants are still at the greatest risk for most vaccine preventable illnesses, because they cannot yet be fully immunized, although the elderly are more likely to die than any other age group from complications of influenza. *See* CDC VACCINE TEXTBOOK, *supra* note 51, at 154-55, 217 (noting the mortality statistics from influenza and pertussis, respectively).

[56] Susan Saulny, *U.S. Birthrate Dips as Hispanic Pregnancies Fall*, N.Y. TIMES, Jan. 1, 2013, at A1; Nicholas Bakalar, *Pregnancy Rates Sink over Last 20 Years*, N.Y. TIMES, July 3, 2012, at D7.

will die or develop debilitating diseases.[57] Therefore, parents want to do everything possible to minimize the risk of childhood death or illness.[58]

Of course, the historical perspective is not the only one available. In comparison to many developed countries, including peers in the European Union and other Organization for Economic Co-Operation and Development (OECD) nations, the United States falls woefully short in measures of children's health, particularly in the areas of infant mortality, preterm birth, and childhood injury and death.[59] These differences are largely attributable to significant racial and economic disparities in health care access in the United States, which carry health consequences for children and adults.[60] Although the Affordable Care

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[57] The leading causes of death for American infants are congenital anomalies, preterm delivery, Sudden Infant Death Syndrome (SIDS), and complications of the mother's pregnancy. For older children, accidents (related primarily to guns, motor vehicles, and play) are the largest single cause of death, followed by homicide, cancer, suicide, and congenital anomalies. Kochanek et al., *supra* note 50, at 6, 29-30. Increasingly, sophisticated prenatal genetic testing permits prospective parents to screen for life-threatening illnesses, with abortion as a possible response to genetic abnormalities. *Cf.* Andrew Pollack, *Clinical Trial Is Favorable for a Prenatal Gene Test*, N.Y. TIMES, Aug. 9, 2012, at B1.

[58] It is probably not an accident that the logo for the National Vaccine Information Center (NVIC), one of the leading anti-vaccine groups, represents a stylized mother comforting (or protecting) a child held in her arms. *See* NATIONAL VACCINE INFORMATION CENTER, http://www.nvic.org (last visited Oct. 7, 2011).

[59] In 2011, the infant mortality rate in the United States was 6.2 deaths per 1000 live births, nearly three times the rate in Iceland (2.2), the top performer, and is higher than twenty-eight other nations including the Slovak Republic (5.7) and Estonia (3.3). OECD, *Health: Key Tables from OECD–Infant Mortality*, *No. 9*, OECD iLIBRARY (2012), http://www.oecd-ilibrary.org/social-issues-migration-health/infant-mortality-2012-1_inf-mort-table-2012-1-en. In 2010, nearly 12 out of every 100 babies was born prematurely, a rate higher than nearly every European nation, Russia, China, Mexico, most of South America, and most of North Africa. WORLD HEALTH ORG., BORN TOO SOON: THE GLOBAL ACTION REPORT ON PRETERM BIRTH, 3, 12 (2012) *available at* http://whqlibdoc.who.int/publications/2012/9789241503433_eng.pdf.

[60] *See, e.g.*, David Satcher, *Commentary: Our Commitment to Eliminate Racial and Ethnic Health Disparities*, 1 YALE J. HEALTH POL'Y L. & ETHICS 1 (2001) (documenting widespread racial and ethnic disparities in health care access and outcomes); Rick Mayes & Thomas R. Oliver, *Chronic Disease and the Shifting Focus of Public Health: Is Prevention Still a Political Lightweight?*, 37 J. HEALTH POL. POL'Y & L. 180, 182 (2012). Studies have also shown a strong correlation between childhood stressors, such as physical and sexual abuse, domestic violence, parental alcoholism and mental illness, and the incidence of many adult health problems. Many of these stressors are closely correlated with poverty and inner city or rural isolation. Vincent J. Felitti, *Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults*, 14 AM. J. PREVENTATIVE MED. 245, 251 (1998). Children who

Act has the potential to reduce these disparities, class- and race-based differences in health care outcomes are likely to persist for some time.[61]

Having offered this overview of children's health in America, I now turn to two areas of inquiry. The first deals with the social and psychological processes involved in risk construction—how we perceive risk and how we communicate about it, whether as individuals, journalists, medical and scientific experts, advocates, or policymakers. The second inquiry asks how this process of risk construction intersects with the law and the legal system, particularly with jurors and other triers of fact. Here, I will focus on the way that the law "manages" risk through theories of legal liability and precautionary regulation. I will also explore the tendency of American law to focus on single human actors, rather than diffuse or multiple causal contributors. Taken together, these larger legal and societal phenomena make it more likely that mothers, rather than others, will be held accountable for harm to children.

II. THE SOCIAL AND PSYCHOLOGICAL CONSTRUCTION OF RISK

A. RISK PERCEPTION

Like beauty, risk is in the eye of the beholder. For scientists and lawyers who work at the intersection of science and health (and perhaps to some members of the public), it is tempting to believe that risk can be assessed objectively. We would like to believe that there is a single number—like three in a million—that represents the risk of injury or death from a particular type of danger, easily derived by multiplying the potential magnitude of a particular harm with the probability that it will occur.[62] To be sure, quantitative approaches exist and can be useful for assessing and managing risk, but their apparent objectivity may be misleading. For example, in considering the potential harm from exposure to a toxic chemical, a quantitative risk assessment will take into account what is known about the dose-response relationship, the route and duration of the exposure, the variability in human response to that

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depend on Medicaid, the primary insurer of poor and low income children, are less likely to receive necessary services in a timely fashion. Tara Parker-Pope, *For Children on Medicaid, the Doctor Is Out*, N.Y. TIMES, June 16, 2011, at A24. The Medicaid program is always a target of cuts in tough economic times. *See, e.g.*, Robert Pear, *Medicaid Benefits Dropping for Millions of Patients*, N.Y. TIMES, June 15, 2011, at A24.

[61] *See, e.g.*, Joel Teitelbaum et al., *Translating Rights into Access: Language Access and the Affordable Care Act*, 38 AM. J.L. & MED. 348, 373 (2012).

[62] Roger E. Kasperson et al., *The Social Amplification of Risk: A Conceptual Framework*, *in* PAUL SLOVIC, THE PERCEPTION OF RISK 232 (2000). This approach has been criticized for not taking into account other values that are important but harder to quantify. *Id.* at 234.

chemical, what is known about the mechanism of toxicity, carcinogenicity, etc., and the uncertainty involved with each of these variables.[63] To this already complex equation must be added highly subjective factors—how large a margin of safety is necessary to protect vulnerable populations (children, the elderly, and those with a genetic susceptibility to a particular toxin), what data points should be selected for analysis, how reliable animal models are for determining human health, and the fact that in real life, exposure is never limited to a single chemical.[64] Each variable added, and step taken, to develop a potentially more accurate analytical model involves subjective value judgments that influence how great a risk is found.[65]

In addition, many "hard" scientists and social scientists have observed that risk, or the perception of it, is not a quantifiable, scientifically discoverable fact.[66] As Paul Slovic, a leading researcher on the psychological and social construction of risk, has stated, "risk does not exist 'out there,' . . . waiting to be measured."[67] Rather, for scientists as well as lay people, the identification and construction of risk is a highly subjective process, strongly influenced by one's gender, race, social class, individual psychological and cultural values, and unconscious affective and cognitive processes.[68] Thus, "[w]hoever controls the definition of risk controls the . . . solution to the problem at hand. [The way one frames risk is outcome determinative.] Defining risk is thus an exercise in power."[69]

Many researchers have documented "the white male effect," a finding that about thirty percent of all white men perceive very little risk

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[63] Alison C. Cullen & Mitchell J. Small, *Uncertain Risk: The Role and Limits of Quantitative Assessment*, *in* RISK ANALYSIS AND SOCIETY: AN INTERDISCIPLINARY CHARACTERIZATION OF THE FIELD 163, 163-67 (Timothy McDaniels & Mitchell J. Small eds., 2004). Uncertainty and variability are two distinct concepts. "'Uncertainty forces decision makers to judge how probable it is that risks will be overestimated or underestimated for every member of the exposed population, whereas variability forces them to cope with the certainty that different individuals will be subjected to risks both above and below any reference point one chooses.'" *Id.* at 165. In addition, "dose-response uncertainty is often the largest and most important source of error in an integrated health risk assessment." *Id.* at 167.

[64] *Id.* at 165-67, 172-73.

[65] *Id.* at 172-74.

[66] SLOVIC, *supra* note 62, at xxxvi.

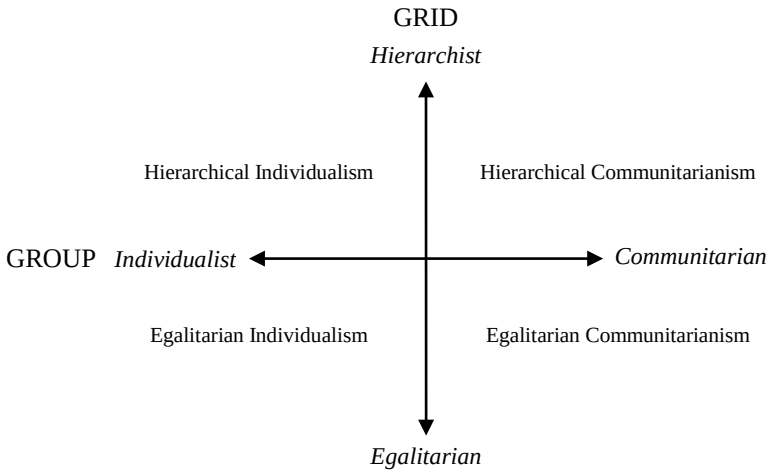
[67] *Id.*

[68] Risk assessment is highly complex, encompassing both objective and subjective aspects, and varies depending on the factors noted. *Id.* at xxix-xxxvi; Paul Slovic, *Trust, Emotion, Sex, Politics, and Science: Surveying the Risk-Assessment Battlefield*, 19 RISK ANALYSIS 689 (1999).

[69] SLOVIC, *supra* note 62, at xxxvi.

in a broad array of potential hazards, ranging from vaccination to lead paint to nuclear power plants to handguns.[70] White women and African-Americans of both genders perceive much greater risk in the same lists of potential hazards.[71] Researchers have considered—and rejected—multiple explanations for "the white male effect." They have found that people's perception of risk does not seem to depend on their level of education, income, or scientific literacy; nor does it reflect their status as caregivers.[72]

However, many scholars have concluded that "the white male effect" is simply the most striking example of a larger socio-psychological phenomenon. This is that people's perception of risk depends substantially on their world view, specifically on whether their outlook is hierarchical (as opposed to egalitarian) and/or individualist (as opposed to communitarian).[73] We may envision this as a grid:[74]



Under this "world view" theory, it is not surprising that "those with a[n] . . . *individualistic* orientation[, who] expect individuals to 'fend for

[70] *Id.* at 44, xxxiv; Melissa L. Finucane et al., *Gender, Race, and Perceived Risk: The 'White Male' Effect*, 2 HEALTHY RISK & SOC'Y 159, 163-64 (2000).
[71] Finucane et al., *supra* note 70.
[72] *Id.*; *see also* Dan M. Kahan et al., *Culture and Identity-Protective Cognition: Explaining the White Male Effect in Risk Perception*, 4 J. EMPIRICAL LEGAL STUD. 465, 480-83 (2007). Many researchers have found that different levels of knowledge about a particular hazard do not account for gender differences in risk perception, although they have also discerned that in general women are more comfortable than men in expressing anxiety about particular risks. Jan L. Hitchcock, *Gender Differences in Risk Perception: Broadening the Contexts*, 12 RISK: HEALTH SAFETY & ENV'T 179, 182, 188, 201-02 (2001).
[73] Kahan et al., *supra* note 72, at 483 (reviewing the literature); *see also* Finucane et al., *supra* note 70, at 160-61, 170.
[74] Kahan et al., *supra* note 72, at 468.

themselves and therefore tend to be competitive,'" are more likely to "dismiss claims of environmental risk as specious, in line with their commitment to the autonomy of markets and other private orderings."[75] Similarly, those holding a hierarchical world view are less likely to perceive risk, because "assertions of environmental catastrophe" carry an implicit threat to the "competence of social and governmental elites."[76] In each case, individuals' race and gender intersect with their distinctive worldviews "as a defensive response to a form of cultural identity threat," leading them to be more or less sensitive to potential risk in order to minimize that threat.[77] Thus, those with a communitarian outlook "assume that individuals will 'interact frequently . . . in a wide range of activities' in which they must 'depend on one another,' a condition that promotes values of solidarity."[78] Communitarians are much more likely than individualists to be aware of, and concerned about, environmental and technological risks.[79] In their view, reducing these risks is justified because a failure to do so will "produce social inequality and legitimize unconstrained self-interest."[80] Similarly, those with more "egalitarian" attitudes—that is, people who reject predetermined roles based on status categories like gender, age, and family connections—are also more likely to perceive technological activities to be risky.[81]

Overall, multiple studies have found that the white male subjects who judged environmental and technological risks to be the lowest shared important demographic and world view characteristics. They were better educated, made more money, were politically conservative, and trusted experts, institutions, and authority. Perhaps as a result, they were disinclined to give average citizens the power to decide how risk should be managed.[82]

Many studies have replicated these findings,[83] which have important implications for understanding the social and psychological construction of risk. Several authors suggest that the reason for the strong and persistent connection between world view and attitude toward risk is that

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[75] *Id.* at 468-69 (discussing grid).
[76] Dan M. Kahan et al., *Culture and Identity-Protective Cognition: Explaining the White Male Effect in Risk Perception* 5 (Yale Faculty Scholarship Series, Paper 101, 2007), *available at* http://digitalcommons.law.yale.edu/fss_papers/101.
[77] Kahan et al., *supra* note 72, at 467.
[78] *Id.* at 469 (ellipses in original).
[79] *Id.* at 469, 480.
[80] *Id.* at 469.
[81] *Id.*
[82] SLOVIC, *supra* note 62, at xxxiv; Finucane et al., *supra* note 70, at 160-61.
[83] Kahan et al., *supra* note 72, at 465-66 (citing studies).

people's world views are threatened by the adoption of different attitudes toward risk.[84] For example, a male with a hierarchical world view is likely to believe that men, rather than women, should be in positions of public authority and that women should remain within the private, domestic sphere.[85] For such a man, recognition of significant environmental risks would challenge "the prerogatives and competence of social and governmental elites," threatening the man's identity as a member of a privileged group.[86] One can compare this man with a hypothetical woman whose worldview is both hierarchical and communitarian. She is most likely to believe abortion is risky to women, because abortion poses a threat to the ideal of motherhood as a woman's most virtuous role.[87] The persistence of these cognitive biases—the fact that individuals shape their assessment of information in a way that reinforces the existing beliefs of the group to which they belong[88]—helps explain not only the continued ferocity of America's culture wars over the last four decades, but also the difficulties scientists and other experts face in convincing people to consider new information as a means of changing their attitudes about particular risks.[89]

People also tend to view a risk as more or less serious depending on whether they have experienced it personally or have heard about it from

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[84] *Id.* at 480-83; SLOVIC, *supra* note 62, at xxxiv; Finucane et al., *supra* note 70, at 160-61.

[85] Kahan, *supra* note 72, at 474.

[86] *Id.* Similarly, a person with an individualistic (as opposed to communitarian) worldview would tend to have pro-market attitudes, and might feel his identity threatened were he to acknowledge that commercial activities were potentially risky.

[87] Kahan et al., *supra* note 76, at 12, 17-18, 30.

[88] *Id.* at 6, 9.

[89] *Id.* at 35-36. Other psychological factors also play an important role in shaping individuals' risk assessments. For example, risks which are assumed voluntarily are perceived as less dangerous than those which are imposed on one as a result of law, obligation, or coercion. On the other hand, a more neutral reason for experiencing a lack of control over the risk may make it more acceptable, such as when a risk is seen as the only possible alternative, or when it is encountered at work rather than in a person's private life. Risks that are presented as "known" invoke less dread than those that are indeterminate. Similarly, risks whose consequences will be apparent immediately appear less dangerous than those whose consequences will materialize in the future. R.E. Spier, *Perception of Risk of Vaccine Adverse Effects: A Historical Perspective*, 20 VACCINE S78, S78 (2002); *see also* Noel T. Brewer et al., *Meta-Analysis of the Relationship Between Risk Perception and Health Behavior: The Example of Vaccination*, 26 HEALTH PSYCHOL. 136, 137 (2007) (noting that "risk" itself is an ambiguous term, which can be broken down into constituent elements of perceived likelihood of harm, perceived susceptibility to that harm, and perceived severity if that harm materializes).

the media. This is often called "the availability heuristic."[90] A simple story of a terrible event can be much more powerful than a detailed and well-documented statistical analysis of risk, even if (or perhaps precisely because) the simple story lacks nuance and specificity.[91] In practice, many people are more concerned about newly discovered risks (such as lead in toys) than long-standing risks that have faded into the background (such as lead poisoning from old paint, or injuries from common household appliances).[92] Research has also shown that people often pay more attention to risks that are highlighted by the media even if they are less likely to occur.[93]

B. RISK COMMUNICATION

The same psychological factors and socio-cultural preferences that shape risk perception also influence the ways that we talk about risk, particularly the discussions that take place among experts, policymakers, and the public. Here, the availability heuristic, coupled with the average person's desire for straightforward explanations of complicated phenomena, makes it easy for the public to be persuaded by simple, though incomplete, narratives about risk. It is difficult to compete with a well-told and compelling anecdote, even though a more nuanced risk assessment is more accurate.

For example, a study of attitudes toward mandatory HPV vaccination of girls showed that people's attitudes about the desirability of mandating vaccination were heavily skewed by the apparent identity of the expert who offered an opinion about vaccination. As explained by Dan Kahan, the researchers "constructed arguments for and against mandatory vaccination and matched them with fictional male experts, whose appearance . . . and publication titles [presented] . . . distinct cultural perspectives." When the putative anti-vaccine expert fit a hierarchical and individualistic profile, people who "shared those values and who were . . . predisposed to see the vaccine as risky became even more intensely opposed to it." Similarly, when the putative expert appeared to hold communitarian and egalitarian values and supported the vaccine, those who also had communitarian and egalitarian world views

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[90] Thomas B. Newman, *The Power of Stories over Statistics*, 327 BRIT. MED. J. 1424, 1426 (2003).

[91] *See id.* at 1426-27.

[92] *See, e.g.*, Abigail Goldman, *Lead-Paint Toys Aren't the Biggest Risk*, L.A. TIMES, Sept. 23, 2007, http://articles.latimes.com/2007/sep/23/business/fi-kidrisk23.

[93] As described by Cass Sunstein, "[w]hen people lack statistical knowledge, they consider risks to be significant if they can easily think of instances in which those risks came to fruition." CASS R. SUNSTEIN, LAWS OF FEAR 5 (2005); *see also* Peggy Ornstein, *The Toxic Paradox*, N.Y. TIMES, Feb. 8, 2009, at MM17.

became even more vociferous in their support for vaccination. However, when researchers switched the expert personas so that the hierarchical expert supported mandatory vaccination and the egalitarian expert opposed it, the experimental subjects responded in the opposite manner, making their polarized views disappear.[94] This study provides an important lesson about risk communication. In order for people to be open to a new understanding of risk, "information must be transmitted in a form that makes individuals' acceptance of it compatible with their core cultural commitments. *It is not enough that the information be true;* it must be framed in a manner that bears an acceptable social meaning."[95] In short, one cannot persuade a skeptical public simply by presenting more facts.[96]

This experiment also illustrates the importance of trust in understanding and talking about risk. If the listener does not trust the person who is assessing, evaluating, or managing risk, then the speaker faces an uphill battle of persuasion, and the listener's skepticism will be hard to overcome. Risk and trust are thus highly interactive. When government agencies charged with assessing and managing risk offer "highly confident statements about [a] . . . problem[,] they can build public confidence [in the agency's competency but at the same time] lead citizens to question their honesty. [Conversely, f]ull and open expressions of uncertainty can make the agent appear more honest, but (alas) less competent."[97] Further, both "media and special interest groups . . . [are] quite skilled in bringing trust-destroying news to public attention."

An important example appears in current controversies over childhood vaccination. In an era in which few parents have seen firsthand the deadly consequences of a disease that could have been prevented by vaccination,[98] it is easy for parents to focus on vaccination's potential risks, even if they are mild. Between 2000 and 2004, the national Institute of Medicine (the IOM) convened eight separate task forces to evaluate the scientific evidence of an asserted causal connection between vaccination and the development of autism.[99] The IOM found no causal relationship between the measles, mumps and

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[94] Dan Kahan, *Fixing the Communications Failure*, 463 NATURE 296 (2010).
[95] Kahan et al., *supra* note 72, at 497 (emphasis added).
[96] *See, e.g.*, Hitchcock, *supra* note 72; *see also* ASS'N OF STATE AND TERRITORIAL HEALTH OFFICIALS, COMMUNICATING EFFECTIVELY ABOUT VACCINES: NEW COMMUNICATION RESOURCES FOR HEALTH OFFICIALS (2010), *available at* http://www.astho.org/WorkArea/DownloadAsset.aspx?id=5464.
[97] Cullen & Small, *supra* note 63, at 168.
[98] Kathryn M. Edwards, *State Mandates and Childhood Immunization*, 284 JAMA 3171, 3171 (2000).
[99] INSTITUTE OF MEDICINE, IMMUNIZATION SAFETY REVIEW: VACCINES AND AUTISM 2 (2004).

rubella vaccination and the development of autism; similarly it found no causal relationship between administration of vaccines containing thimerosal and the development of autism.[100] However, out of an abundance of caution, the IOM recommended removing the preservative thimerosal from childhood vaccines, which ironically served to fuel skeptics' concerns that thimerosal *was* harmful.[101] Vaccination opponents have even twisted the fact that over the last several decades the Food and Drug Administration (FDA) and Centers for Disease Control and Prevention (CDC) have worked to develop an elaborate vaccine safety system, alleging that this is itself evidence of a significant risk of harm from vaccination.[102]

Paul Slovic asserts that the American democratic system exacerbates inherent difficulties in risk communication. He argues that "in the US, risk-management tends to rely heavily upon an adversarial legal system that pits expert against expert, contradicting each other's risk assessments and further destroying the public trust."[103]American administrative law depends on the input of competing scientific and economic experts and requires a good deal of procedural due process as

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[100] *Id.* at 16, 151-52.

[101] Thimerosal was added as a vaccine preservative to guard against contamination of vaccine. In the U.S. such preservatives are no longer necessary because no vaccine is presently administered from multiple dose vials any longer; however, in much of the developing world that is the only affordable way to provide vaccination. A 2010 study examining maternal and infant exposure to thimerosal found no evidence of a casual relationship between prenatal and infant thimerosal exposure and the development of an autism spectrum disorder. Cristofer S. Price et al., *Prenatal and Infant Exposure to Thimerosal from Vaccines and Immunoglobulins and Risk of Autism*, 126 PEDIATRICS 656, 656 (2010). This study confirms a number of earlier studies.

[102] This system, known as VAERS (the Vaccine Adverse Event Reporting System), permits doctors and parents to report suspected adverse vaccination events and provides epidemiologists with the ability to scrutinize data for potential patterns of injury. The existence of VAERS could well be seen as evidence that the government is on top of the vaccine safety issue. However, critics of vaccination assert that the adverse effects which *are* reported are only the tip of the iceberg, and that in fact vaccines are very dangerous. *See, e.g.*, Barbara Loe Fisher, *In the Wake of Vaccines*, MOTHERING, Sept./Oct. 2004, at 38, 42. Fisher's faulty logic begins with the assertion that "each year about 12,000 reports are made to the Vaccine Adverse Event Reporting System; parents as well as doctors can make those reports." *See id*. She continues, "However, if that number represents only 10 percent of what is actually occurring, then the actual number may be 120,000 vaccine-adverse events. If doctors report vaccine reactions as infrequently as [former FDA Commissioner] Dr. [David] Kessler said they report prescription-drug reactions, and the number 12,000 is only 1 percent of the actual total, then the real number may be 1.2 million vaccine-adverse events annually." *Id.*

[103] SLOVIC, *supra* note 62, at xxxv.

well as open deliberations about risk assessment and risk management. Yet this emphasis on transparency and full airing of scientific and economic disagreements may actually make risk communication both more difficult and less compelling. The processes by which administrative agencies discuss and manage risk bears a marked similarity to highly contested insanity defense cases, in which dueling psychiatrists tend to present starkly different visions of the defendant's criminal responsibility. Critics describe these forensic differences as a "battle of the experts" or "flipping coins in the courtroom."[104] In many notable instances, when agency decisions are challenged in the federal courts, the struggle of judges grappling with risk is both public and painful.[105]

III. HOW THE LAW REFLECTS AND SUPPORTS THE SOCIAL-PSYCHOLOGICAL CONSTRUCTION OF RISK

We thus come to the important question: "So what?" Why does it matter that the way people perceive and talk about risk depends in important and unexpected ways on their race, gender, social status, and personal world view? It matters, of course, because the law is also socially constructed. Law is not merely a set of positive commandments and prohibitions—the criminal code and regulatory requirements—or a set of blackletter rules derived from case precedents. Rather, the law also embodies a world view, built on underlying assumptions and norms with the avowed goal of shaping human behavior. For example, both criminal law and tort law have deterrence as a major goal, as well as the compensation of injured victims and the actual and symbolic imposition of punishment and blame.[106]

Three important aspects of American law both permit and reinforce the emphasis on mothers as the primary source of harm to their children. The first is the essential role that the "reasonable person" plays in imposing liability in tort and in criminal law. The second is the elastic set of rules that govern the law of causation and the historical tendency of the law to prefer an individually-based, rather than a multi-factorial, model of causation.[107] The third is the American legal system's emphasis

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[104] Bruce Ennis & Thomas Litwack, *Psychiatry and the Presumption of Expertise: Flipping Coins in the Courtroom*, 62 CALIF. L. REV. 693 (1974).

[105] *See, e.g.*, Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst., 448 U.S. 607 (1980); Ethyl Corp. v. EPA, 541 F.2d 1 (D.C. Cir. 1976) (en banc). See *infra* Part III.C. for a discussion of both cases.

[106] Donald G. Gifford, *The Challenge to the Individual Causation Requirement in Mass Product Torts*, 62 WASH. & LEE L. REV. 873, 882-88 (2005); Michael L. Rustad, *Torts as Public Wrongs*, 38 PEPP. L. REV. 443, 525-27 (2011).

[107] Ironically, this may be changing in light of the decision in *Citizens United v. Federal Election Commission*, 558 U.S. 310 (2010), in which the Supreme

on realized, rather than threatened, harm, evidenced currently by profound skepticism about precautionary regulation.[108] Each of these three features of American law is significant in its own right, yet it is also important to note that they are linked by the common construct of foreseeability. Taken individually and together, these three core legal phenomena have profound implications for how the American legal system responds to complex situations of risk creation and multiple causal forces in general. More specifically, these three legal phenomena also have important impacts on how American law views the actions—or inactions—of mothers vis-à-vis their children.

A. THE REASONABLE PERSON

As all first year law students know, the "reasonable person" is a central concept in the law. An individual who falls below the standard of behavior expected of the reasonably prudent person—because she or he is too careless, too clumsy, or too clueless—is liable in tort for negligence[109] and, in certain cases, may even be criminally responsible.[110] However, the construction of the "reasonable person" is neither neutral nor abstract. Writing as a twenty-first century legal realist, Professor Steven Hetcher asserts that mainstream tort scholars[111]

Court granted corporations and other fictional persons the full First Amendment rights previously accorded only to human individuals.

[108] *See, e.g.*, Robert V. Percival, *Who's Afraid of the Precautionary Principle?*, 23 PACE ENVTL. L. REV. 21, 22 (2006).

[109] *See* RESTATEMENT (THIRD) OF TORTS: PHYSICAL AND EMOTIONAL HARM § 3, Negligence, cmt. a. Implicit in the finding that a defendant is negligent is that s/he had a duty to act in a reasonable manner which was breached by the defendant's actions or failure to act. The reasonableness of a defendant's actions is measured in part by foreseeability: "In order to determine whether appropriate care was exercised, the factfinder must assess the foreseeable risk at the time of the defendant's alleged negligence." *Id.* § 7, Duty, cmt. j.

[110] *See, e.g.*, MODEL PENAL Code §§ 2.02(2)(d), 210.4 (2012) (defining negligently and negligent homicide, respectively); *see also* CAL. PENAL CODE § 192(b) (defining involuntary manslaughter, inter alia, as a killing that occurs "without due caution and circumspection"); State v. Williams, 484 P.2d 1167 (Wash. Ct. App. 1971) (holding Native American parents liable for manslaughter because they did not "understand the significance or seriousness of the baby's symptoms" [gangrene due to an abscessed tooth] when reasonable parents would have). At the time *Williams* was decided, the Washington manslaughter law embodied the civil law standard of simple negligence but this was subsequently changed to gross (criminal) negligence. State v. Norman, 808 P.2d 1159, 1164 (Wash. Ct. App. 1991).

[111] Steven Hetcher, *The Jury's Out: Social Norms' Misunderstood Role in Negligence Law*, 91 GEO. L.J. 633 (2003). These scholars are the architects of the Restatement of Torts and the people who fill the law journals with theoretical ruminations. Hetcher refers to them as "legal centralis[ts]," a term he borrows from Robert Ellickson. Ellickson describes "legal centralism" as "the

have missed the boat when they announce substantive tort law principles without considering the crucial role of the jury in articulating that law. Hetcher observes that when juries decide cases, they bring their own moral intuitions and preconceived notions of appropriate behavior to the deliberative process. When jurors are told to decide the issue of negligence using the "reasonable person" standard, their own morally and culturally constructed sense of how a reasonable person would act has a major impact on the outcome of the case.[112] In Hetcher's words,

> [T]here is a de facto standard that results from the jury's application of the formal standard through the lens of its normative vision. The natural consequence of these de facto standards is that different jurors with different sets of norms can be expected to produce different outcomes . . . . *A neutral, objective application of the standard to the facts simply does not exist*.[113]

In practice, then, juries deciding cases go far beyond objective "fact-finding." They actually make law, what Judge Learned Hand called "legislation in parvo," or little laws.[114] This jury-made law exists totally apart from what legal scholars traditionally consider to be law, such as case precedents, statutes embodying a particular rule, or the more gentle "persuasive authority" of sources like the Restatement.[115] Further, the principles that guide the jury are often quite distinct from the rules of law which law students learn and judicial opinions announce.[116] For

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tendency to believe that 'the state functions as the sole creator of operative rules of entitlement among individuals.'" *Id.* at 634.

[112] Hetcher cites the "venerable" case of *Vaughn v. Menlove*, 132 Eng. Rep. 490 (C.P. 1837), to illustrate the importance of the jurors' background norms in the deliberative process. These norms come into play whether or not attorneys for the respective parties have introduced evidence of custom to show the existence of a particular standard of care. Hetcher, *supra* note 111, at 640. Of course, in contrast to documents or testimony offered by a litigant to demonstrate the existence of an established custom, the application of jurors' norms of appropriate behavior occurs without any judicial oversight. Compare this with jury's consideration of facts known to one or more jurors, which is a ground for reversal of a criminal conviction. *See, e.g.*, People v. Maragh, 729 N.E.2d 701, 706 (N.Y. 2000) (holding that when jurors who were nurses shared their professional knowledge with the rest of the jury, the fact-finding process was impaired).

[113] Hetcher, s*upra* note 111, at 640 (emphasis added).

[114] *Id.* at 641.

[115] *See, e.g.*, Michael D. Green & Larry S. Stewart, *The New Restatement's Top Ten Tort Tools*, 46 APR TRIAL 44, 48 (2010).

[116] Hetcher thinks this is a good thing. "From the perspective of democratic theory, the jury norm effect's impact on formal legal outcomes is an anti-elitist . . . feature of American tort law . . . . Jury practices arguably embody important

example, when jurors endeavor to apply the "reasonable person" test,[117] they are much more likely to rely on their intuitive sense of reasonableness[118] than on either the utilitarian cost-benefit rule formulated by Judge Learned Hand as the test for negligence[119] now embodied in the Restatement,[120] or on a "corrective justice" model, as articulated by Julius Coleman, among others.[121]

This conclusion—that the law is literally socially constructed—makes sense in light of what we know about the complex nature of risk perception, risk assessment, and risk management. As discussed previously, whether or not a particular action or failure to act is "risky" lies in the eye of the beholder. In deciding that a defendant was negligent, a jury is implicitly finding that a risk existed, that the defendant had a duty to protect against it,[122] failed to do so, and caused harm.[123] Making this type of risk determination depends both on the context in which a potential harm arises, about which jurors may hold preconceived notions of appropriate behavior, and on jurors' world views and other cognitive biases.

1. The Reasonable Pregnant Woman: A Tort Story

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norms of political participation, value pluralism, and separation of powers." Hetcher, *supra* note 111, at 636.

[117] *Id.* at 639-40 (asserting that jurors are not usually given any detailed instructions on the reasonable person, or a definition of this hypothetical individual (citing Stephen G. Gilles, *On Determining Negligence: Hand Formula Balancing, The Reasonable Person Standard, and the Jury*, 54 VAND. L. REV. 813, 815 (2001))).

[118] *See generally* Hetcher, *supra* note 111, at 641-42; CAROL B. ANDERSON, INSIDE JURORS' MINDS: THE HIERARCHY OF JUROR DECISION-MAKING, A PRIMER ON THE PSYCHOLOGY OF PERSUASION: THE TRIAL LAWYER'S GUIDE TO UNDERSTANDING HOW JURORS THINK 9-25, 47-49, 63-68 (National Institute for Trial Advocacy 2012). Indeed, jurors tend to evaluate the reasonableness of another's behavior according to the heightened standard of their idealized rather than actual selves.

[119] *See, e.g.*, United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947).

[120] RESTATEMENT (THIRD) OF TORTS § 3. See especially *id.* cmt. e.

[121] Hetcher, *supra* note 111, at 649-57.

[122] As noted previously, negligence law generally presumes that all actors have a duty to avoid physical harm when their conduct creates a risk of harm to others, unless they fall into a category in which policy considerations militate against imposing a duty as a matter of law. RESTATEMENT (THIRD) OF TORTS: PHYSICAL AND EMOTIONAL HARM § 7, Duty, cmt. a.

[123] *But cf.* Michael D. Green, *Symposium, Flying Trampolines and Falling Bookcases: Understanding the Third Restatement of Torts*, 37 WM. MITCHELL L. REV. 1011, 1015 (2010).

Let us examine briefly one area in which jurors' normative beliefs could significantly affect their determination of negligence—the question of whether pregnant women should be held liable for creating a risk of harm to their fetuses, either in tort or criminal law. Six reported cases have addressed the question of whether children can seek tort damages from their mothers based on the mothers' actions while pregnant; the decisions are evenly split.[124] Although the "back stories" of these cases are not clear, the lawsuits' apparent goal was to provide economic compensation to injured children, since in each case the mother was sued by the child's father or guardian. The cases focused on two separate legal questions: first, did the pregnant woman have a legal duty to her fetus to protect it against potential harm, and second, if she did, did she behave unreasonably, i.e., negligently, in not taking sufficient precautions to avoid that harm? Four cases involved motor vehicle accidents in which the pregnant women either drove or crossed the street negligently.[125] Two cases focused on the mothers' use of drugs while pregnant. One of these cases involved a legal drug, Tetracycline, which apparently resulted in the child having discolored teeth.[126] The other involved the pregnant woman's use of alcohol and cocaine, allegedly causing cognitive and physical harm to her child.[127]

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[124] In chronological order, the cases are *Grodin v. Grodin*, 310 N.W.2d 869 (Mich. Ct. App. 1981), *Stallman v. Youngquist*, 531 N.E.2d 355 (Ill. 1988), *Bonte v. Bonte*, 616 A.2d 464 (N.H. 1992), *Chenault v. Huie*, 989 S.W.2d 474 (Tex. App. 1999), *Nat'l Cas. Co. v. N. Trust Bank of Fla., N.A.*, 807 So. 2d 86 (Fla. Dist. Ct. App. 2001), and *Remy v. MacDonald*, 801 N.E.2d 260 (Mass. 2004). In addition, a recent Wisconsin decision, *Tesar v. Anderson*, 789 N.W.2d 351 (Wis. App. 2010), *rev. denied*, 797 N.W.2d 523 (2011), addressed the closely related circumstances of a child who was delivered stillborn after his pregnant mother was involved in a car accident in which she and the driver of another car were both alleged to have driven negligently. In this case, which was decided on appeal from a grant of summary judgment in favor of the defendants, the father of an "unborn child" was permitted to bring a cause of action for wrongful death. The Court of Appeals of Wisconsin declined to draw a distinction in the wrongful death context between a fetus and a living child. *Tesar*, 789 N.W.2d at 361-64. The court also relied heavily on Wisconsin's unusually broad concept of duty, based on the dissenting opinion in *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99, 340 (1928) (Andrews, J., dissenting) which has been accepted only in Wisconsin and one other jurisdiction. *Palsgraf*, 162 N.E. at 355-56.

[125] *Stallman*, 531 N.E.2d 355 (Ill. 1988), *National Casualty*, 807 So. 2d 86 (Fla. Dist. Ct. App. 2001), and *Remy*, 801 N.E.2d 260 (Mass. 2004), are the cases in which the pregnant woman's driving was alleged to be negligent; in *Bonte*, 616 A.2d 464 (N.H. 1992), the pregnant woman was an allegedly negligent pedestrian.

[126] *Grodin*, 301 N.W.2d at 869.

[127] *Chenault*, 989 S.W.2d at 475.

Out of the six cases, three courts permitted the child to sue the mother, leaving it up to the jury whether the mother acted reasonably in driving her car, crossing the street, or taking Tetracycline while she was pregnant.[128] Two of the courts explicitly cited the goal of providing compensation to an injured child, while in the third case this reasoning was implicit.[129]

In the three cases that reached the opposite conclusion, courts recognized the practical and policy problems that would flow from the imposition of a duty in tort on pregnant women. These include not only the difficulty of articulating a clear and objective standard for juries to follow, but also the risk of interfering with women's right to privacy and autonomy and the potential for adverse and unintended outcomes for children's health.[130] In *Stallman v. Youngquist*,[131] the Illinois Supreme Court refused to allow a child injured in a car accident in which her pregnant mother was driving to sue her mother for negligence.[132] The court began by considering the "fact of life" that a pregnant woman's "every waking and sleeping moment . . . shapes the prenatal environment which forms the world for the developing fetus."[133] The court characterized the relationship between a pregnant woman and her fetus as "unlike the relationship between any other plaintiff and defendant."[134] The *Stallman* court ruled that it was impermissible to impose a legal duty

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[128] *Grodin*, 301 N.W.2d at 869-70 (framing the question as a simple factual question for the jury: did the woman's Tetracycline use constitute a "reasonable exercise of parental discretion?"); *see, e.g.*, Thelen v. Thelen, 174 Mich. App. 380, 383 (1989) (stating that the appropriate question to be addressed in a child's lawsuit against a parent is not whether the parent's behavior was reasonable but whether the parent's action could be seen as reasonably within the scope of protected parental authority or discretion); Mayberry v. Pryor, 134 Mich. App. 826, 832-33 (1984) (criticizing the reasoning in *Grodin* and stating that the appropriate question to be addressed in a child's lawsuit against a parent is not whether the parent's behavior was reasonable but whether the parent's action could be seen as reasonably within the scope of protected parental authority or discretion).

[129] *Nat'l Cas. Co.*, 807 So. 2d at 87; *Grodin*, 301 N.W.2d at 869; *Bonte*, 616 A.2d at 465-66 (stating, in recognizing a duty of care for pregnant women, that it should be measured by the same standard of care applicable to mothers of born children).

[130] *Stallman*, 531 N.E.2d 355 (Ill. 1988); *Remy*, 801 N.E.2d 260 (Mass. 2004); *Chenault*, 989 S.W.2d 474 (Tex. App. 1999).

[131] *Stallman*, 531 N.E.2d 355.

[132] *Id.* at 355-56, 358, 361 (criticizing the *Grodin* decision, suggesting that the Michigan court had confused the question of whether parental tort immunity should be abrogated with the different issue of whether a pregnant woman owed a tort duty to her fetus).

[133] *Id.* at 360.

[134] *Id.*

of care on a pregnant woman, articulating four reasons for its holding,[135] each of which recognizes the social and psychological construction of the "reasonably prudent person." First, it would be impossible either to limit or define a pregnant woman's duty to her fetus, since so many actions taken in a woman's life, even prior to conception, could affect a fetus.[136] Second, it would be impossible to develop an objective standard applicable to women from diverse socio-economic backgrounds with different access to healthcare, who might or might not know whether they were pregnant.[137] Third, the court declared that judicial recognition of a common law cause of action constituted an "unprecedented intrusion into the privacy and autonomy of the [female] citizens of this State,"[138] which, under separation of powers doctrine, should only be accomplished by the legislature, and even then, "only after thorough investigation, study, and debate."[139] Finally, the court acknowledged the limits of tort liability in shaping human behavior. It declared that "[t]he way to effectuate the birth of healthy babies is not . . . through after-the-fact civil liability in tort for individual mothers, but rather through before-the-fact education of all women and families about prenatal development."[140]

In 2004, in *Remy v. MacDonald*,[141]the Massachusetts Supreme Judicial Court reached a similar result.[142] The court recognized that there was substantial disagreement over whether pregnant women should be potentially liable for causing fetal harm. Noting the virtually unlimited range of circumstances in which a woman could be sued, the court found that there was no principled way to limit pregnant women's liability for

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[135] *Id.* at 359-60.
[136] *Id.* at 360.
[137] *Id.*
[138] *Id.* at 361.
[139] *Id.*
[140] *Id.* Reaching a similar result, the Supreme Court of Canada decided *Dobson v. Dobson*, [1999] 2 S.C.R. 753 (Can.). The court relied explicitly on the *Stallman* court's reasoning, emphasizing the unique relationship between the pregnant woman and the fetus, the pregnant woman's independent privacy and autonomy rights, the impossibility of devising an objective standard of pre-maternal conduct, and the inevitable slippery slope upon which courts, litigants, and juries would be launched in trying to determine the contours of appropriate behavior while pregnant.
[141] Remy v. MacDonald, 801 N.E.2d 260 (Mass. 2004).
[142] The court declined to permit a child to sue its mother for prenatal harm—premature birth and related injuries—caused by her alleged negligent driving. *Id*. at 262, 266-67.

causing fetal harm to the motor vehicle context in which insurance was frequently available to fund compensatory damages.[143]

The third case, *Chenault v. Huie*,[144] addressed more difficult factual circumstances, in which a woman who used both legal and illegal drugs while pregnant gave birth to a child with developmental problems and cerebral palsy. Her sister, the child's guardian, sued, seeking compensatory and punitive damages for the mother's alleged negligence.[145] Largely tracking the reasoning of *Stallman*, the Texas Court of Appeals declined to recognize a common law cause of action by a child against its mother for prenatal harm.[146] In addition, the court noted the potential adverse impact of imposing civil liability on pregnant women, explaining that women who feared liability might not be candid with their physicians and thus receive less than adequate prenatal care.[147]

2. The Reasonable Parent in Criminal Law

The criminal law also relies on the concept of the "reasonable person," including the sub-categories of the "reasonable parent" and the "reasonable mother." There is an ongoing debate in the criminal law about how much to "subjectivize" the "reasonable person." Is she or he the reasonable person of the same age, gender, race, temperament, and other characteristics of the defendant, or only a more abstract and reified construction?[148] Most law students will recall the case of *People v.*

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[143] The court explicitly rejected the reasoning of *Grodin*, *Bonte*, and *National Casualty*, and found that courts should recognize the "inherent and important differences between a fetus, in utero, and a child already born, that permits [sic] a bright line to be drawn around the zone of potential tort liability of one who is still biologically joined to an injured plaintiff." *Id.* at 263-67.

[144] Chenault v. Huie, 989 S.W.2d 474 (Tex. App. 1999).

[145] *Id.* at 475-76.

[146] The Texas court declared that, while "the law wisely no longer treats a fetus as only a part of the mother, the law would ignore the equally important physical realities of pregnancy if it treated the fetus as an individual entirely separate from his mother." The court pointed to the difficulty of establishing an objective, uniform standard of care for pregnant and potentially pregnant women, noting the unavoidable subjectivity of jurors, which would lead inevitably to inconsistent and unpredictable jury verdicts. In addition the court found that to recognize a cause of action here would invade women's autonomy and interfere with women's rights to control their daily lives. The court also held that decisions about fetal protection were best left to the legislature. *Id.* at 475-78.

[147] *Id.* at 478.

[148] *See, e.g.*, Dir. of Pub. Prosecutions v. Camplin, [1978] Eng. Rep. 168 (H.L.); *rev'd*, Regina v. Smith (Morgan), [2001] 1 A.C. 146. For a summary of the evolution of this doctrine in the United Kingdom, see SANFORD H. KADISH ET

Williams,[149] in which poorly educated Native American parents were prosecuted for manslaughter after their infant son died from gangrene and pneumonia resulting from the lack of treatment for an abscessed tooth. The evidence at trial showed that the parents failed to act because they believed both that the child's situation was not dangerous and that if they had brought him to medical authorities, they might have been accused of child neglect and would have lost custody of the child—something that had happened to relatives.[150] In class discussion, most students recognize that their application of the negligence standard inevitably involves a normative evaluation of the parents' conduct. However, the class is often divided over whether the choice of a particular "reasonable person" standard should favor retributive or deterrent goals. In practice, the question becomes whether imposing liability will unfairly stigmatize Native Americans—and punish these particular parents too severely—or be more likely to ensure that in the future, parents of all social and educational strata will seek medical attention for children who might be at risk of harm.

In a different criminal context, the question of when and whether a reasonable person has a duty to prevent injuries caused by the actions of another has important ramifications for mothers. In general, Anglo-American criminal law imposes no duty to rescue.[151] A failure to act becomes the legal equivalent of the actus reus required by the criminal law *only* when the defendant has a duty to act. Such a duty may be derived from a statute, contract, status (such as being a parent), or it may be imposed where "one has voluntarily assumed the duty of care of another and so secluded the helpless person as to prevent others from

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AL., CRIMINAL LAW AND ITS PROCESSES: CASES AND MATERIALS 408-10 (8th ed. 2007).

[149] 484 P.2d 1167 (Wash. Ct. App. 1971).

[150] *Id.* at 1173-74.

[151] John Kleinig, *Good Samaritanism*, 5 PHIL. & PUB. AFF. 382 (1976), *cited in* KADISH ET AL., *supra* note 148, at 198. Only six states impose any duty to act, and then only in various narrowly delineated circumstances (e.g., the person in peril is "exposed to grave physical harm" (VT. STAT. ANN. tit. 12, § 519 (West 2012)), or is at the scene of an emergency (R.I. GEN. LAWS §11-56-1 (West 2012) and MINN. STAT. ANN. § 609.662 (West Supp. 2000)), or the victim of a sexual crime (FLA. STAT. ANN. § 794.027 (West 2000) and R.I. GEN. LAWS §11-37-3.3 (West 1994 reenactment)) or violent crime (WIS. STAT. ANN. §940.34(2)(a) (West 1997) and HAW. REV. STAT. ANN. § 663-1.6 (LexisNexis 1995))).

rendering aid."[152] This staunchly libertarian no-duty rule resonates with America's preference for autonomy and individual rights.[153]

A marked exception to the "no duty" rule appears in the case of parents, especially mothers. Every year, American women are prosecuted for homicide and other crimes when their children are killed by the woman's male partner, either a husband or boyfriend.[154] The converse is much less likely to be true.[155] This reflects a variety of factors, including the socially and legally constructed nature of the "reasonable person," especially the "reasonable mother," the elastic conception of parental duty,[156] and the principles of causation, which I will explore in more detail shortly. Here, the role of foreseeability in defining legal obligations is significant. At the heart of negligence law is the principle that a person has no duty to prevent harm unless that harm is foreseeable.[157] It is easy to say that for a mother, harm to her children is *always* foreseeable if her partner has any history of violent, dangerous, or simply uncaring behavior, thus creating a duty to act to prevent that harm. In practice, fathers are much less likely to be prosecuted or to suffer civil consequences for their failure to protect their children from harm actively committed by their wives or girlfriends.[158] I will now turn

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[152] *See, e.g.*, Jones v. United States, 308 F.2d 307, 310 (D.C. Cir. 1962); *see also* MODEL PENAL CODE §2.01(3) (Proposed Official Draft 1962) (defining the circumstances under which an omission constitutes an act).

[153] Kleinig, *supra* note 151.

[154] Nancy S. Erickson, *Battered Mothers of Battered Children: Using Our Knowledge of Battered Women to Defend Them Against Charges of Failure to Act*, *in* 1A CURRENT PERSPECTIVES IN PSYCHOLOGICAL, LEGAL AND ETHICAL ISSUES 197, 198 (Sandra Anderson-Garcia & Robert Batey eds.,1991).

[155] Saundra Chung, *Mama Mia! How Gender Stereotyping May Play a Role in the Prosecution of Child Fatality Cases*, 9 WHITTIER J. CHILD & FAM. ADVOC. 205, 205-10 (2009); Jeanne A. Fugate, Note, *Who's Failing to Protect Whom? A Critical Look at Failure-to-Protect Laws*, 76 N.Y.U. L. REV. 272, 273-74 (2001).

[156] In cases in which women are prosecuted based on their asserted failure to act when they had a duty to act, this duty may be found in a specific statute or derived from the common law. *See, e.g.*, Lane v. Commonwealth, 956 S.W.2d 874 (Ky. 1997) (with majority and concurring judges relying on statutory and common law sources, respectively), *discussed in* Lissa Griffin, *"Which One of You Did It?" Criminal Liability for "Causing or Allowing" the Death of A Child*, 15 IND. INT'L & COMP. L. REV. 89 (2004); *see also* Erickson, *supra* note 154, at 198-203.

[157] RESTATEMENT (THIRD) OF TORTS: PHYSICAL AND EMOTIONAL HARM § 3, Negligence. Even then, foreseeability will not always be enough to impose liability, because of other policy considerations. *See, e.g.*, W. Jonathan Cardi, *Purging Foreseeability: The New Vision of Duty and Judicial Power in the Proposed Restatement (Third) of Torts*, 58 VAND. L. REV. 739, 762-67 (2005) (discussing the development of rules on social host liability).

[158] *See* Chung, *supra* note 155, at 205-10; Fugate, *supra* note 155, at 273-74.

to the implications of finding such a duty as we discuss American law's approach to causation.

B. CAUSATION AND ITS FOCUS ON A UNITARY SOURCE OF HARM

In the same way that an elastic conception of the reasonable mother makes it easy for a jury to find that a specific mother breached her duty to her child, the historical bias of American law in favor of a unitary, rather than multi-factorial, model of causation makes it easy for American tort lawyers, prosecutors, and juries to focus on mothers as *the* cause of harm to their children. This emphasis on finding a single source of harm is, in part, a carryover from the pre-industrial Anglo-American legal system, which reflected moral and religious notions of personal responsibility and largely ignored the possibility of multiple causation.[159] In the late nineteenth and early twentieth centuries, American legal theorists postulated that law was a science,[160] with "correct legal principles . . . [, including the method for determining *the* proximate cause, being deducible] through logical and objective inquiry."[161] This emphasis on individual actions and actors is particularly apparent in tort law and its dual requirements of actual cause (usually stated using the "but-for" test) and proximate cause (referred to in the Third Restatement as "scope of liability").[162] Proximate cause is predicated on foreseeability:[163] only if the defendant could or should

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[159] *Cf.* Jo Goodie, *Toxic Tort and the Articulation of Environmental Risk*, 12 LAW TEXT CULTURE 69, 73, 78 (2008). This emphasis on the individual is also a central theme of American culture, and its theme of rugged individualism and personal responsibility. *See also* Kenneth G. Dau-Schmidt & Carmen L. Brun, *Lost in Translation: The Economic Analysis of Law in the United States and Europe*, 44 COLUM. J. TRANSNAT'L L. 602, 605 (2006) (citing JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT (AN ESSAY CONCERNING THE TRUE ORIGINAL, EXTENT AND END OF CIVIL GOVERNMENT) AND A LETTER CONCERNING TOLERATION 64 (J.W. Gough ed., Basil Blackwell & Mott, Ltd. 1966) (1690)); William P. Marshall, *National Healthcare and the American Constitutional Culture*, 35 HARV. J.L. & PUB. POL'Y 131, 139-44 (2012).

[160] This was the basic premise of Christopher Columbus Langdell, the originator of the case method of legal analysis and the founder of "modern" legal education. *See* Laura I. Appleman, *The Rise of the Modern American Law School: How Professionalization, German Scholarship, and Legal Reform Shaped Our System of Legal Education*, 39 NEW ENG. L. REV. 251, 252 (2005).

[161] RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM §34 cmt. a (2010) (emphasis in original).

[162] *See, e.g.*, June v. Union Carbide Corp., 577 F.3d 1234, 1239-44 (10th Cir. 2009); Green & Stewart, *supra* note 115, at 46; RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM §§ 28-29 (2010).

[163] The authors of the Third Restatement acknowledge both that the role of proximate cause in setting limits on liability has evolved since the advent of comparative negligence and other doctrines for apportioning liability and that the concept of foreseeability is highly malleable. In some jurisdictions

have foreseen the potential harmful consequences of his or her actions can the defendant be found liable.[164] Of course, since hindsight is 20-20, judges and juries are likely to find that the harm *was* foreseeable, and therefore it becomes relatively easy to establish proximate cause.[165]

In contrast to writers in an earlier era, modern tort scholars recognize that the determination of both actual and proximate cause is inevitably value-laden, reflecting cultural attitudes about individual and corporate responsibility and implicating specific legal policy goals.[166] Paralleling our earlier discussion of risk perception, social-psychological research shows that the way jurors and others draw "conclusions about cause and effect is not [a matter of science, that is,] . . . of passive discovery of objective fact." Rather, determining causation is "an active process of

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foreseeability is the touchstone for a determination of proximate cause. RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 34 cmts. a, c, & d (2010).

[164] *Palsgraf v. Long Island R.R.*, 162 N.E. 99 (1928), is the most famous American case making a policy-based argument for limiting liability to those harms which are reasonably foreseeable, requiring foreseeability both of the type of harm and the class of person as a prerequisite to a finding of proximate cause. As Judge Cardozo declared, "The risk reasonably to be perceived defines the duty to be obeyed, and risk imports relation." *Id.* at 100. Proximate cause is referred to by current tort law scholars as "scope of liability." RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 29 (2010).

[165] For an extreme example in a criminal case of a court stretching to find foreseeability, see KADISH ET AL., *supra* note 148, at 510-12 (citing People v. Acosta, F049145, 2006 WL 2831048, at *1-4 (Cal. Ct. App. Oct. 5, 2006)).

[166] In modern academic circles, there is a long-standing debate about whether causation is absolutely necessary as a predicate to liability. Corrective justice theorists, most notably Ernest Weinrib, insist that actual causation is necessary to preserve the moral, deontological basis for imposing liability in tort, while instrumentalist tort theorists, including Richard Posner and Guido Calabresi, have asserted that proof of actual and specific causation is not necessary in view of tort law's goals of preventing accidents, inducing behavioral change on the part of risk creators, and distributing losses on a widespread basis. Gifford, *supra* note 106, at 876-77, 881-87; *see also* Hetcher, *supra* note 111, at 647-58 (discussing the dominant corrective justice and utilitarian (cost-benefit) approaches to tort law); RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 6 cmt. d (2010) (discussing the "rationales for imposing liability for negligent conduct"); MARTHA CHAMALLAS & JENNIFER B. WRIGGINS, THE MEASURE OF INJURY: RACE, GENDER, AND TORT LAW 122-23 (2009) (suggesting that both jurors and framers of "the law" are unable to separate out "scientific" fact-finding from conscious and unconscious policy judgments); Hetcher, *supra* note 111, at 642-46 (discussing commentators' recognition of jurors' primitive strict liability intuitions as well as their tendency to act on the basis of comparative negligence, even when not instructed to do so).

social construction," . . . varying according to people's "time, place, culture and interest."[167]

The natural tendency of jurors, as well as legal scholars, to think of causation primarily in terms of individual actors—single causal agents—plays out in the case of mothers and their children in two very interesting ways, each implicating different strands of causation doctrine. The first strand of doctrine involves both actual cause and proximate cause, but it assumes that at any given time there can be only one cause of harm. A second aspect of causation theory is illustrated in the tort landscape of childhood lead poisoning. Here landlords of apartments with peeling paint frequently defend against liability on the ground that the intellectual deficits of a lead-poisoned child plaintiff are not the result of lead ingestion but are instead due to the genetic or environmental influence of the child's mother.[168]

1. Mothers' Liability for the Abusive Acts of Their Partners

The legal principles of causation provide that, in some circumstances, the actions of one human being can "cut off" the causal chain of events initiated by another human being, creating a new "but for" cause of harm, which courts have denominated a "superseding" or "supervening" cause.[169] When mothers are criminally prosecuted for failing to protect their children from harm from the mother's boyfriend or husband, the concept of "superseding cause" permits a jury to focus on the construct of "the reasonable mother" to find, with the benefit of hindsight, that a mother who fails to act to prevent the foreseeable harmful actions of her husband or boyfriend is criminally responsible for that harm.[170] Many jurors believe that a mother has an absolute duty to

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[167] CHAMALLAS & WRIGGINS, *supra* note 166, at 124.

[168] *See* discussion *infra* Part III.B.2.

[169] *See, e.g.*, Goldring v. State, 654 A.2d 939 (Md. App. 1995) (discussing criminal foreseeability and intervening causation in the context of drag racing cases); *see also* State v. McFadden, 320 N.W.2d 608 (Iowa 1982); Jacobs v. State, 184 So. 2d 711 (Fla. Dist. Ct. App. 1966); Commonwealth v. Root, 170 A.2d 310 (Pa. 1961). In the tort context see RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM § 34 cmt. a (2010) (noting an evolution of tort law in this area from a pseudo-scientific and formalistic inquiry to the recognition "in the latter part of the 20th century that there are always multiple causes of an outcome"); see also Jane Stapleton, *Legal Cause, Cause-In-Fact and the Scope of Liability for Consequences*, 54 VAND. L. REV. 941, 968-69 (2001) (criticizing "the pseudo-scientific language of the 'intervening' factor breaking the 'chain of causation'").

[170] See cases discussed in Erickson, *supra* note 154, at 200-03; Griffin, *supra* note 156, at 95-98; Chung, *supra* note 155.

protect her child's health.[171] In cases in which the mother was present when the child was injured, it appears that nothing less than proof that the mother was beaten so severely that she could not intervene to protect her child will save the mother from prosecution or conviction.[172] On the other hand, if the mother was not present when the child was injured, the prosecution is likely to argue that she should not have left the child in the man's care, even if he was the child's father, and even if she was working or otherwise acting to support her family.[173] If there is *any* evidence that the mother was aware of the possibility that the man would harm the child, the prosecution will assert both that the mother had a duty to act and that her failure to act to intervene was the proximate cause of that harm, thus, justifying holding her criminally responsible.[174] Jurors, who will be instructed in general terms about a parent's duty to protect a child from harm,[175] are likely to be influenced by culturally constructed norms of what a "good mother" would do, as well as unconscious racial and class biases.[176]

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[171] In the recent New York case of *Nixzmary Brown*, a seven year old girl was beaten to death by her stepfather. Both her mother and stepfather were charged with homicide; her mother was prosecuted on the basis of her alleged failure to act to prevent the killing. As one prospective juror explained, "'[t]he biggest part of being a mother is protecting the child from the world.'" Chung, *supra* note 155, at 213-14.

[172] Erickson, *supra* note 154, at 197-98, 205 (discussing the prosecution's decision to dismiss charges against Hedda Nussbaum, a severely battered woman, who was initially charged along with her husband in her daughter's death, as well as the case of June Webb, who raised an unsuccessful defense of duress in *United States v. Webb*, 747 F.2d 278 (5th Cir. 1984)).

[173] Alternatively, the prosecution may assert that the mother failed to meet her duty of providing medical care when she returned and found her child injured. Erickson, *supra* note 154, at 200-02 (citing People v. Atkins, 125 Cal. Rptr. 855 (Cal. App. 1975) and State v. Williquette, 385 N.W.2d 145 (Wis. 1986)).

[174] This evidence can support a finding that the mother was criminally culpable when she failed to act to remove the child from harm. *See* Commonwealth v Cardwell, 515 A.2d 311 (Pa. Super. Ct. 1986) (upholding mother's conviction for child abuse for failing to successfully intervene to stop her daughter's sexual abuse at the hands of her husband, despite substantial evidence of her husband's violence and her efforts to move her daughter to a safe location); *see also* Michelle S. Jacobs, *Criminal Law: Requiring Battered Women [to] Die: Murder Liability for Mothers Under Failure to Protect Statutes*, 88 J. CRIM. L. & CRIMINOLOGY 579, 585 (1998).

[175] See, for example, Cal. Jury Instr.-Crim. 1.40 (2009), which suffers from the same lack of definition as the "reasonable person" standard.

[176] Chung, *supra* note 155, at 213-14; Roberts, *supra* note 33, at 117. In addition, depending on the law of evidence in the particular state, it may be difficult for the mother to introduce evidence that she was also a victim of domestic violence or emotional coercion, which would be relevant to the issue

2. How Mothers Can Be Blamed To Avoid Liability for Toxic Torts

Another surprising example of how mothers appear front and center in the discourse of risk arises in the context of lead poisoning. It is well known that exposure to lead is dangerous, even at low levels.[177] It can cause neurological and cognitive impairments, behavioral problems, and even death.[178] Today, most children poisoned by lead have ingested it in the form of lead paint flakes or inhaled it from lead dust.[179] Both forms of lead are released into children's homes when landlords fail to safely maintain paint surfaces.[180] Tort litigation to compensate poisoned children has proceeded along two fronts: first, against the manufacturers of lead paints and pigments, and second, against landlords.[181]

Despite lead's conceded toxicity, it has been extremely difficult for children injured by exposure to lead dust and paint to successfully sue the manufacturers of lead paints and pigments due to the requirement of showing actual causation, including a showing that a particular defendant manufactured the product which injured a particular plaintiff. Indeed, in the arena of toxic torts, courts have relaxed the requirement of cause-in-fact in only two major groups of lawsuits over the last forty years.[182] In the first, the so-called "DES cases," girls whose mothers

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of whether her failure to act was the result of duress. *See, e.g.*, United States v. Webb, 747 F.2d 278 (5th Cir. 1984).

[177] Am. Acad. of Pediatrics Comm. on Envtl. Health, *Lead Exposure in Children: Prevention, Detection, and Management*, 116 PEDIATRICS 1036, 1037 (2005).

[178] Percival, *supra* note 108, at 38; Deborah W. Denno, *Considering Lead Poisoning as a Criminal Defense*, 20 FORDHAM URB. L.J.. 377, 396 (1993); CHAMALLAS & WRIGGINS, *supra* note 166, at 139-40.

[179] Am. Acad. of Pediatrics Comm. on Envtl. Health, *supra* note 177, at 1037.

[180] Thomas Miceli et al., *Protecting Children from Lead-Based Paint Poisoning: Should Landlords Bear the Burden?*, 23 B.C. ENVTL. AFF. L. REV. 1, 3-4 (1995).

[181] John S. Gray & Richard O. Faulk, *"Negligence in the Air?" Should "Alternative Liability" Theories Apply in Lead Paint Litigation?*, 25 PACE ENVTL. L. REV. 147, 169-70 (2008).

[182] *Sindell v. Abbott Laboratories*, 607 P.2d 924 (Cal. 1980), was a lawsuit brought by young women who developed a signature form of cancer after their mothers had ingested DES during pregnancy. Although the plaintiffs were unable to identify the particular defendant who had manufactured the DES prescribed to their mothers, the California Supreme Court permitted the case to go forward using a "market share" theory, allocating liability under a novel theory of joint and several liability. *See* Gifford, *supra* note 106, at 878, 902-08 (describing court's analysis in *Sindell* and market share liability more generally). The foundation for the plaintiffs' case was laid in *Summers v. Tice*, 199 P.2d 1, 2-5 (Cal. 1948), in which the California Supreme Court held that when a plaintiff was injured by the actions of one of two defendants, both of whom created a risk of harm to him by shooting in his direction, both

took a prescription drug, DES, while pregnant developed a signature form of cancer that rendered them infertile. Although the plaintiffs were, in many cases, unable to identify the specific manufacturer of the DES taken by their mothers, the California Supreme Court, and others following it, permitted plaintiffs to recover against a group of manufacturers, apportioning liability based on the manufacturers' "market share."[183] In the other case, which involved veterans and their family members injured by Agent Orange, a chemical defoliant used widely during the Vietnam War, the court approved a class action settlement against multiple chemical manufacturers and the United States government that provided damages to the plaintiffs following the same pattern of market share liability.[184] Other cases in which courts have used innovative approaches to causation include *Rutherford v. Owens-Illinois, Inc.*[185] and the *Brooklyn Navy Shipyard Litigation*.[186]

Until its ban in 1978, lead-based paint was widely manufactured, sold, and used in the United States despite widespread knowledge of its toxicity, due largely to the lead pigment industry's lobbying and media strategies.[187] Today there are many potential defendants in lead paint poisoning cases: they are the owners of aged and dilapidated buildings who have failed to properly maintained them. These substandard dwelling units are concentrated in the Midwest and Northeastern United States. In most cases it is impossible to determine which manufacturer is responsible for the particular paint ingested.[188] Lawyers representing children injured by lead paint have been largely unable to persuade courts that they should relax the requirement of individually attributable causation, as was done in both the DES and Agent Orange cases. In only one case, *Thomas v. Mallett*,[189] has a state's highest court permitted a suit to go forward against the manufacturers of lead-based paint and

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defendants would be jointly and severally liable for the harm caused to plaintiff, unless either could completely exonerate himself.

[183] *Id.*

[184] In the Agent Orange Litigation, the plaintiff class encompassed Vietnam veterans and members of their families, who commenced actions against various chemical companies who, in turn, served third-party complaints against the United States. *In re* Agent Orange Prod. Liab. Litig., 534 F. Supp. 1046 (E.D.N.Y. 1982). The case is discussed at length by Gifford, *supra* note 106, at 878.

[185] 941 P.2d 1203 (Cal. 1997).

[186] 971 F.2d 831, 836 (2d Cir. 1994). Both *Brooklyn Navy Shipyard* and *Rutherford v. Owens-Illinois* are discussed in Gifford, *supra* note 106, at 899 and 908-09, respectively.

[187] Gerald Markowitz & David Rosner, *"Cater to the Children": The Role of the Lead Industry in a Public Health Tragedy, 1900-1955*, 90 AM J. PUB. HEALTH 36, 36-43 (2000).

[188] Thomas v. Mallett, 701 N.W.2d 523, 559, 562-65 (Wis. 2005).

[189] 701 N.W.2d 523 (Wis. 2005).

paint pigments containing lead using the same risk contribution theory it applied in a DES case.[190] In contrast, several state and federal courts have rejected the use of market share or risk contribution theories against lead industry manufacturers,[191] as well as innovative actions under public nuisance theory to seek money damages to pay for the enormous costs of cleaning up lead paint in ramshackle housing.[192]

In some relatively rare cases, plaintiffs have succeeded in holding individual landlords responsible for causing harm to children who can prove that they were injured by their ingestion and inhalation of peeling paint and lead dust in run-down housing.[193] Despite the clear evidence of lead's potential for harm, in many cases defendants' lawyers have declined to admit responsibility and have resisted liability based on causation.[194] A typical defense tactic is to concede that lead-based paint can cause the type of injuries alleged but assert that in the particular case, the plaintiff's cognitive deficits and behavioral problems are his mother's fault and attributable to her genetic make-up, which she has passed along to her child, poor parenting skills, or other environmental factors for which the landlord is not responsible.[195] Resisting the application of the eggshell-plaintiff rule, which holds that a defendant

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[190] *Id.* at 559-65. However, the plaintiff was unsuccessful at trial. Thomas v. Mallett, 795 N.W.2d 62 (Wis. Ct. App. 2010) (affirming jury verdict in defendants' favor).

[191] See Gifford, *supra* note 106, at 900-08, especially n.133, citing cases.

[192] *See, e.g.*, State v. Lead Industries Assoc., Inc., 951 A.2d 428, 451 (R.I. 2008) (noting especially the lack of proximate cause to support a claim of harm); *In re* Lead Paint Litigation, 924 A.2d 484, 486 (N.J. 2007).

[193] Virginia McGee Richards & Ben A. Hagood, Jr., *Hazardous House: Obligations and Remedies After Discovering Lead-Based Paint*, S.C. LAW., May 2006, at 28, 30-33; *see also* Donald G. Gifford & Paolo Pasicolan, *Market Share Liability Beyond DES Cases: The Solution to the Causation Dilemma in Lead Paint Litigation?*, 58 S.C. L. REV. 115, 127 (discussing a variety of legal and insurance obstacles to holding landlords liable). Under applicable federal law, the Residential Lead-Based Paint Hazard Reduction Act, 42 U.S.C. § 4852(d), litigation focuses primarily on the failure to disclose the presence of lead-based paint, and permits buyers and lessees to seek compensation for the costs of clean-up, rather than encompassing compensation for the health consequences of failing to clean-up the property. Richards & Hagood, *supra*, at 30, 33.

[194] CHAMALLAS & WRIGGINS, *supra* note 166, at 141-46.

[195] *Id.* at 139-53 (citing cases); *see, e.g.*, Van Epps v. Cnty. of Albany, 706 N.Y.S.2d 855, 859 (noting "a growing trend amongst the defense bar in lead injury cases to seek intelligence quotient (I.Q.) examinations and the medical, educational and employment records of non-parties and siblings, in order to dispute causation or to limit damages" (citing Hope Viner Samborn, *Blame It on the Bloodline, Discovery of Nonparties' Medical and Psychiatric Records Is Latest Defense Tactic in Disputing Causation*, 85 A.B.A. J. 28 (1999); Jennifer Wriggins, *Genetics, IQ Determinism, and Torts: The Example of Discovery in Lead Exposure Litigation*, 77 B.U. L. REV. 1025 (1997))).

takes the injured party as it finds him,[196] these landlords seek to switch the focus of the narrative from the dilapidated condition of their rental premises to the mother. Their lawyers attempt to tilt the litigation playing field against the plaintiff, frequently seeking extensive pre-trial discovery about the intellectual abilities and achievements of the plaintiff's family members (especially the mother).[197] In some cases, landlords have been successful in persuading the trial court to order the mother or siblings to provide their own school records and to submit to IQ tests.[198] Here, the potential for both judge and jury to make decisions based on their stereotypes of inner-city children of color and their mothers is both obvious and dangerous.[199] Once again, mothers can be blamed for harm to their children, overlooking the substantial contributions of other, more distant but powerful, sources of harm. Because of the American legal system's historical preference for a single, simple cause of harm, it is easy for children who have been injured due to lead exposure not to receive adequate compensation for that harm. Although some states, like Massachusetts, have moved aggressively to reduce children's exposure to lead through the enactment of precautionary legislation, in other states, government has been slow to move to prevent lead exposure, and almost all states limit the legal remedies available to children. In many states the economic interests of property owners receive greater protection than children.[200]

Finally, in contrast to the limited legal remedies and extended medical and legal struggles facing inner-city children with high levels of lead in their bodies, we might consider the enormous public outcry over

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[196] CHAMALLAS & WRIGGINS, *supra* note 166, at 141; *see also* RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM §31. Under the eggshell plaintiff rule, when a plaintiff's injuries are greater than anticipated, due in part to the plaintiff's preexisting condition, the defendant will be held liable for the entire extent of the injuries assuming the other elements of the tort are satisfied. *See* CHAMALLAS & WRIGGINS, *supra* note 166, at 121.

[197] See also CHAMALLAS & WRIGGINS, *supra* note 166, at 145-46, and sources cited in *supra* note 192; *cf.* Parker v. Hous. Auth. of Baltimore, 742 A.2d 522, 523-25 (Md. Ct. App. 1999) (declaring that while a trial court could not order a non-party (a child's mother) to submit to a mental examination, it could condition her ability to testify on submitting to the same examination).

[198] CHAMALLAS & WRIGGINS, *supra* note 166, at 139-53 (citing cases). *But see* Andon v. 302-304 Mott St. Assocs., 731 N.E.2d 589 (N.Y. 2000) (upholding the mid-level appellate court's exercise of discretion to reverse a trial court order compelling the mother of a child allegedly injured by ingestion of lead in the defendant landlord's apartment as being based on speculative arguments of the landlord and unduly intrusive).

[199] CHAMALLAS & WRIGGINS, *supra* note 166, at 148-53 (detailing the flawed reasoning underlying the discovery requests, and the racial and gender bias inherent in it).

[200] *Cf.* Richards & Hagood, *supra* note 193, at 29-33.

lead exposure from toys, especially those imported from China. Not only did Congress act swiftly to meet this perceived threat,[201] but at least one court has ordered medical monitoring in a lawsuit alleging negligent manufacturing of toys to ensure that children who may have been injured from exposure to those toys will have their health status regularly investigated.[202] For this group of children, it appears that the precautionary principle has been successfully invoked.

C. SKEPTICISM ABOUT THE PRECAUTIONARY PRINCIPLE AS A BASIS FOR GOVERNMENT ACTION

Producers of lead, toxic environmental conditions, and other distant contributors to the poor health of America's children often escape legal accountability. This is due in large part to America's skepticism about the precautionary principle, which in turn is both a legacy of laissez-faire capitalism and reflective of America's cultural and legal devotion to the ideal of individual responsibility. However, in the late 1960s and early 1970s, a brief burst of environmental activism successfully challenged the conventional wisdom about the proper role of government in safeguarding the public's health. During that decade, environmental law expanded rapidly beyond its common law roots[203] to a robust statutory realm.[204] The genius of American environmental lawyers was to acknowledge the limits of common law remedies and to push for the enactment of statutes based on the precautionary principle—to prevent, rather than simply ameliorate, health-related harms.

In the heady days of the late 1960s to the early 1970s, Congress enacted, and President Nixon signed, more than thirty statutes designed to protect the population's health.[205] Many of these statutes invoked the precautionary principle, permitting a regulator to act before harm occurred.[206] In response, there was significant debate about how much

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[201] Gips, *supra* note 42, at 545, 548, 580-81.

[202] *See, e.g.*, *In re* Mattel, Inc., 588 F. Supp. 2d 1111, 1117-20 (C.D. Cal. 2008).

[203] For the ruminations of this paragraph I am indebted to ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 178-96 (5th ed. 2006). *See also* Percival, *supra* note 108.

[204] Zygmunt J.B. Plater et al., *A Short Historical Sketch of the Evolution of U.S. Environmental Law*, *in* ENVIRONMENTAL LAW AND POLICY: NATURE, LAW AND SOCIETY 3, 3 (4th ed. 2010).

[205] *Id.*; Matthew Warren, *Active Judging: Judicial Philosophy and the Development of the Hard Look Doctrine in the D.C. Circuit*, 90 GEO. L.J. 2599, 2605 (2002).

[206] The precise contours of the precautionary principle are not well-defined. The concept has roots in the German notion of "Vorsorgeprinzip," which could be translated simply as "foresight planning" but also "'combines notions of foresight and taking care with those of good husbandry and best practice.'" Percival, *supra* note 108, at 23-24. The precautionary principle first gained

risk must be demonstrated before an administrative agency, such as the EPA or OSHA, could act to prevent harm. In many cases, the people resolving this question were federal judges. Like other decisionmakers, these judges also brought their personal biases, political philosophies, math and science phobias, and social identities to the process of perceiving, assessing, and managing risk.

In the 1970s, some federal judges *were* willing to defer to an agency's interpretation of its statutory mandate and permit regulatory action despite a lack of definitive proof of a causal link between a specific type of pollution and harm to the public. A seminal case was *Ethyl Corp. v. Environmental Protection Agency*.[207] Under the Clean Air Act, the Environmental Protection Agency (EPA) was authorized to limit airborne emissions of toxic chemicals if the EPA Administrator determined that such emissions "will endanger the public health or welfare."[208] Based on the available evidence, which showed a strong potential for children to be exposed to toxic levels of lead due to high lead levels in the atmosphere, the EPA determined to phase out lead in gasoline. In that case, Judge J. Skelly Wright interpreted the "will endanger" provision of the Clean Air Act expansively, upholding the EPA's decision.[209] Essentially, Judge Wright determined that the EPA did not need to wait for dead bodies before regulating.[210] "[E]ndanger," he

international environmental recognition in the Rio Declaration of 1992, which stated as a basic principle that "'[w]here there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.'" *Id.* at 21, 81 n.1. *See also* Cass R. Sunstein, *The Paralyzing Principle*, REG., Winter 2002-2003, at 32, *available at* http://www.cato.org/pubs/regulation/regv25n4/v25n4-9.pdf (arguing against the "strong" version of the precautionary principle as potentially leading to paralysis and/or an overinvestment of scarce resources, as well as lacking the ability to indicate a precise regulatory action).

[207] 541 F.2d 1 (D.C. Cir. 1976) (en banc).

[208] *Id.* (interpreting § 211(c)(1)(A) of the Clean Air Act, focusing on the meaning of "will endanger").

[209] *Id.* at 5. Judge Wright found that there was ample evidence of the harmful effects of lead vel non, although there was great dispute about whether the lead in gasoline, emitted through combustion in the automobile engine, was the cause of higher levels of lead in the blood of adults and children. Judge Wright noted, "The reasons for concern are obvious (and essentially undisputed by petitioners [opponents of the regulation]): (1) lead in high concentrations in the body is toxic; (2) lead can be absorbed into the body from the ambient air; and (3) lead particulate emissions from gasoline engines account for approximately 90 percent of the lead in our air. Despite these apparent reasons for concern, hard proof of any danger caused by lead automotive emissions has been hard to come by. Part of the reason for this lies in the multiple sources of human exposure to lead." *Id.* at 8.

[210] *Cf. id.* at 11-13.

said, "means something less than actual harm. When one is endangered, harm is *threatened*; no actual injury need ever occur."[211] Relying on this understanding of Congressional intent in its choice of language in the Clean Air Act, the majority opinion held that even though the EPA could not demonstrate specific *actual harm*—either that a significant portion of the population had very high lead levels or that lead from gasoline was the cause of those high levels—the agency had established a significant *risk of harm.* The court reached its decision based on facts showing risk: the acknowledged toxicity of high lead levels, the fact that ninety percent of the lead in the ambient air came from leaded gas, and that people living in urban areas, especially children, were likely to have greater exposure to lead.[212] This significant risk of harm was sufficient to justify precautionary regulation, and was, in Judge Wright's view, demanded by the statute.[213]

Only a few years later, this expansive approach to regulation was halted in significant part by Justice Stevens' opinion in the "benzene case," *Industrial Union Dep't, AFL–CIO v. American Petroleum Institute*.[214] Arguably reflecting his preference for a demonstration of causation which was more consistent with common law requirements than a Congressional enactment,[215] Justice Stevens interpreted the Occupational Safety and Health Act to mean that before the Occupational Safety and Health Administration (OSHA) could establish a new, lower permissible exposure level for workers exposed to benzene, a potent carcinogen, OSHA must demonstrate that *current* exposure levels represented a "significant risk of harm," which could only be remedied by lowering exposure to another specific level.[216] Since the benzene case, federal regulatory agencies have generally chosen to utilize more quantitative forms of risk analysis, even though this approach often relies on subjective policy choices about which quantitative approach or "conservative assumptions" to adopt.[217] At the same time, Congress and many state legislatures have backed away from their earlier enthusiasm for the precautionary principle, leaving major environmental and public health problems to be addressed through litigation, which is often insufficient to protect the public from significant environmental risks. Litigation has proved an inadequate substitute for legislation, due to the problems faced in identifying appropriate defendants and establishing causation,[218] the time-

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[211] *Id.* at 13 (emphasis added).
[212] *Id.* at 8-9, 44-48.
[213] *Id.* at 13-17.
[214] 448 U.S. 607 (1980).
[215] PERCIVAL ET AL., *supra* note 203, at 183-96.
[216] 448 U.S. at 639-43.
[217] PERCIVAL ET AL., *supra* note 203, at 195-96.
[218] *See* discussion *supra* Part III.B.2.

consuming and expensive nature of litigation, and, most importantly, the fact that litigation does not prevent harm but can only provide after-the-fact recompense, which may have a deterrent effect but only over the long run.

Today, the expansive 1970s approach to preventing harm has largely been relegated to an historical footnote, due to narrow judicial interpretations of precautionary statutes and substantial pushback from political and economic conservatives that has affected decisions of Congress and the courts. Although there is mounting evidence that a wide range of chemicals, including heavy metals like mercury and endocrine disruptors like BPA and phthalates, may cause harm during prenatal development as well as after birth, neither Congress nor federal agencies have proved willing to act aggressively to protect children's health from these threats.[219]

CONCLUSION

The current myopic focus on mothers as the primary source of harm to children stems from the psychological and cultural factors that shape our perception of risk. The way we construct risk is facilitated by American law, which relies on an elastic concept of the reasonable person, simplistic views of causation, and a failure to acknowledge the need for systemic precautionary action to prevent potential harms from materializing. Only by moving beyond a focus on individuals, especially mothers, as the source of risk and taking a broader view of the multiple contributors to children's health can we provide an environment in which all children can thrive.

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[219] *See, e.g.*, Donna S. Eng et al., *Bisphenol A and Chronic Disease Risk Factors in US Children*, 132 PEDIATRICS e637, e638, e641-43 (2013); Leonardo Trasande et al., *Association Between Urinary Bisphenol A Concentration and Obesity Prevalence in Children and Adolescents*, 308 JAMA 1113, 1118-20 (2012); U.S. DEP'T. OF HEALTH AND HUMAN SERVS., AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, CASE STUDIES IN ENVTL. MED. (CSEM), Course WB 2089, at 24, 44-47, 58-59 (2012).