MY BODY HAD A MIND OF ITS OWN
ON TEACHING, THE ILLUSION OF CONTROL, AND THE TERRIFYING LIMITS OF GOVERNMENTALITY (PART I)

JULIA EKLUND KOZA

University of Wisconsin-Madison
koza@education.wisc.edu

Abstract: This essay examines control discourse in and out of educational settings, arguing that illusions of control are among the means by which governance is accomplished in domains far from schools. The tactical productivity of such illusions in non-school settings "necessitates" and explicates their prevalence in education. The first installment of this essay identifies some assumptions undergirding dominant control and management discourse; analyzes discussions of control in fields other education; and briefly examines the role that social location plays in fostering specific understandings of control. A later installment will focus more narrowly on education, music education specifically. The author maintains that recognizing the limits of governmentality, bankrupting illusions of control, and uncoupling associations between uncertainty and terror, are powerful political disruptions. Acknowledging that classroom control may be neither achievable nor desirable may open the door to different understandings of classroom power relations and to re-articulations of the purposes of schooling.

"If you hold on to the handle . . . it's easier to maintain the illusion of control. But it's more fun if you just let the wind carry you."[1]

The caption on the photo of a magician performing a trick reads, "Control Is an Illusion," a statement I find both profound and enigmatic in its implications for classroom power relations. Using illusions of control as a starting point, this essay analyzes pervasive assumptions about control and management in classrooms, music classrooms, in particular. I begin with three vignettes that challenge dominant control discourse while simultaneously underscoring its strength:

As I drift in and out of consciousness, I piece together the previous hours. I am in a surgical recovery room, my husband, Jim, sitting on my left holding our gorgeous newborn, Katie. I am flooded with relief. I had been taken into surgery to correct postpartum bleeding, and being in the recovery room means I have survived. However, every time I look to my left, I see double, two husbands, two babies. I panic. Have I suffered a stroke? I am too drugged to talk. How can I tell Jim that I want him to move to my right so that I won't have to face the doubles?

This is not the post-delivery scene I had imagined. No champagne, flowers, or blissful moments with cherub at breast. The nurse is on the telephone. "No, I am sorry but you cannot donate blood because the required waiting period is one week. She is holding her own." Instantly, I know the caller is my mom. Dear, worried, insistent Mom. How did she get through to the recovery room? I am holding my own. Good.

I hemorrhage again. Lying on pale blue rectangles of paper and plastic that the nurses call chuxs, I feel the strangely comforting gush of warm blood. Each time I hemorrhage, the nurse replaces the chux and weighs the old one. How odd. I ask, and she tells me she is estimating how much blood I have lost.

The recovery room nurse is talking on the phone with my obstetrician. I hear her call for more transfusions, plasma and other blood products. I drift. My obstetrician is standing over me. "We have given you more pitocin, which should cause the bleeding to stop." My abdomen is as hard as rock but the pitocin isn't working, and I know I am in trouble. I begin coaching myself: I need to make this stop or I am going to die. Remember your baby. I hemorrhage again and am flooded with a sense of failure. Try harder, I tell myself, but try as I might, my body seems to have become completely uncontrollable.

I am being whisked back into surgery, to an operating arena in the basement of the hospital. An elderly nurse is running after the gurney, bringing more transfusions. As I am lifted from the gurney onto the operating table, I hemorrhage yet again, this time all over the floor. I envision surgeons and nurses standing in a pool of my blood, but I can't help it and cannot make it stop. In the moments before the anesthesia plunges me into unconsciousness, I think about who will have to clean up the mess.

A response from "Rachel, a graduate student:[2]

> *The issue of bodily control is a constant presence in my life due to a rather intense case of epilepsy that I developed as an adolescent. . . . It is hard for me to not be in control of my own body–I feel like I am trapped inside something that is dangerous. . . . Classified as "working class," I grew up believing that weakness and fragility were unacceptable–I had to be strong, independent, and helpless only in the sense that I did not need anyone else's help. . . . I was so angry that I could not control [my body]. It made me vulnerable. Specialists put me on many different kinds of medicine, but they all had bad side effects. I felt like a guinea pig. I decided that I did not need their meds–the only thing I could depend on and trust with control was myself. . . . Therefore, I created an "illusion of control". . . . I did not eat for a few years as a teenager. I was exactly ninety pounds and 5'10." I did not think I was fat. I thought I was disgusting. That was the point. They hospitalized me but could not keep me there because my vital signs were all "normal." And I was very pleasant. Slowly committing suicide, but "quite pleasant to deal with," I convinced myself that I was controlling my body now, and I was keeping it (and thus myself) safe and healthy.*

"Alice's" observation:

> *When she arrived home from school one afternoon, "Alice," a bright and generally compassionate nine-year old, expressed complete disgust with her classmate "Jeff," who had "totally lost it" again that day. Alice's mother, who was aware that neither Alice nor her classmates had been told of Jeff's autism, tried gently to reinterpret the day's events. "Might it be possible that Jeff was doing the very best he could today even though his best was not acceptable?" Alice's mother probed. Alice dismissed this possibility out of hand. "Oh, he can behave if he* wants *to; he's nine years old! He just* chooses *not to want to."*

These vignettes are about bodies out of control, moments when bodies seemed to have a mind of their own, bodies that defy assumptions commonly held in the United States about control and management. Alice's swift response to other interpretations of her classmate's outbursts illustrates the depth and intractability of the assumption that self control is achievable; the possibility that Jeff could not control himself was inconceivable to a nine-year old. Nevertheless, the bodies themselves call dominant discourse into question, and for this reason, these are dangerous and disruptive stories, so dangerous that the bodies in them may be labeled "abnormal," sick, or dysfunctional–bodies to be rejected or remediated. Another way to think about these disruptive bodies is that they are hopeful starting points for re-articulations of discourse about control of self and others.[3]

The first vignette describes a postpartum trauma I experienced in 1994. During my months of recuperation, I was both fascinated and bemused by my recovery room attempts at self help, especially when I learned that I had hemorrhaged

from a tear the size of an apple. No dose of self will could have stemmed that tide. The trauma has had a profound effect on my understandings of power and has influenced what I now say to music teachers about control, discipline, and classroom management. In response to my vignette, a graduate student, "Rachel," gave a written account of her attempt to gain control by not eating. Her story adds an especially dangerous possibility to the mix: efforts to control may be more destructive than being out of control, itself.

Arguably, neither modern nor postmodern conceptions of power have focused much on the alterity to power, the incompleteness of governance, the domains beyond the limits of governmentality, or the situations when little or no control–of self or of others–can be accomplished either by sovereign or pastoral means. This essay is an attempt to address the void. Because it is lengthy, it will appear in two installments in the *Philosophy of Music Education Review*. I begin this installment by identifying some of the assumptions undergirding dominant control and management discourse, assumptions that constitute pillars of modern thought. Next, I examine what is being said about control and illusions of control in a sampling of fields other than education, including philosophy, psychology, medicine, insurance, bioengineering, ecology, and policy analysis. I end the first part of the essay with a brief examination of the role that social location and privilege play in fostering specific understandings of control. In the second installment, to be published at a future date in the *Philosophy of Music Education Review*, I focus more narrowly on dominant control and management discourse in education, in general, and in music and music education, specifically. Finally, I discuss possible implications for teachers and teacher educators of an interrogation of illusions of control. Throughout the essay I argue that illusions of control are among the means by which governance is accomplished in a host of domains far from schools; the tactical productivity of illusions of control in settings other than schools "necessitates" and explicates their prevalence in educational settings.[4] In turn, the use of illusions of control in school discourse helps assure their continuation and efficacy in other domains. I maintain that recognizing the limits of governmentality, bankrupting illusions of control, and uncoupling associations between uncertainty and terror, are powerful political disruptions. Acknowledging that classroom control may be neither achievable nor desirable may open the door to different understandings of classroom power relations and to re-articulations of the purposes of schooling.

I am not suggesting that bodies never can be controlled either by juridical or pastoral means. For example, as JoAn D. Criddle documents in the book *To Destroy You Is No Loss*, the Khmer Rouge used brute force, as well as intimidation, psychological terrorism, and the threat of force, to accomplish its goals in Cambodia during the 1970s.[5] Furthermore, I acknowledge the efficacy of pas-

toral means of control. I watched with mixed emotions as my daughter quickly learned to discipline her body in her first formal ballet lessons. She entered the all-girl class as a wildly energetic three-year old who repeatedly yelled throughout the precise exercise regimens, "When are we going to *dance*????" In the hands of her gentle teacher, my daughter quickly morphed into a docile body that could coupé and passé with the best of them.

Rather, one of my goals is to interject into discussions of power and governmentality the perhaps obvious reminder that *power, whether productive or repressive, has limits, as do people's ability to govern themselves and others.* The range of control by individuals or groups may be far more limited than many of us–teachers, in particular–have been led to believe. Neither a gun to the head, nor a more pastoral gun inside the head can force or persuade a body to levitate or live forever. I may be able to discipline my body to dance the ballet or play the piano, neither of which is essential for survival, but I was unable to control a massive hemorrhage that could have killed me, and even the best doctors could have been helpless, too.

Furthermore, I do not want to reinforce a rigid dichotomy that sets apart what can be controlled from what cannot without interrogating those categories and recognizing the dynamism and mobility of any line between them. Consider for example, phenomena called "natural" disasters, events that are often assumed to be outside the realm of human control. As Michael Apple points out, some so-called "natural" disasters are the result of human action,[6] which places their prevention within the range of human capability. To acknowledge the everchanging permeability and mobility of the divide between what can or cannot be controlled is not to suggest that in all instances control is or someday will be humanly possible, however.

PREVALENT ASSUMPTIONS ABOUT CONTROL

The intellectual arenas and political projects where discussions of control currently surface often share not only a common lexicon of terms, including "management," "surveillance," and "risk," but also the broad systems of reasoning that give these terms meaning. Several assumptions shape prevalent conceptions of control and form part of a constellation of different logics of control: control of self, others, and surroundings is possible (if not now, in the future, if not all of the time, at least some or most of the time); control is beneficial when in the "right" hands and when used for "good" ends; control produces predictability and tames uncertainty; predictability, security, and certainty are beneficial; unpredictability, uncertainty, and being out of control are dangerous and detrimental; uncertainty is tameable and manageable; taming uncertainty is beneficial; and risk can and must be controlled. In the United States these assumptions, or variants, surface everywhere. They are evident, for example, in pronouncements from *Body for*

Life, a weight-loss guide featuring enticing "before" and "after" body-improvement photos. The first page of the book boldly asserts, "When you gain control of your body, you will gain control of your LIFE."[7] In other words, when the body is under control, all other aspects of life will fall into place, too. This optimistic pronouncement leaves little room for doubt about *whether* a person's body or life is controllable, and it certainly does not invite contemplation about the dimensions of life totally unrelated to having a thin body. Thus, it asserts that life and the body are a potentially governable, unified entity that will respond to medical or scientific intervention, if not to attempts at self control. Like many other discussions of control, *Body for Life* focuses not merely on the present but also on an ostensibly promising future that control in the present will effect; the "before" and "after" pictures document the evolution of a past, filled with future promise, into a present where promise has been fulfilled.

Examining all the sources from which these control assumptions are derived is beyond the scope of this essay, but Enlightenment humanism has made contributions, including optimistic conceptions of humanity and an emphasis on self determination, individual freedom, and progress. Taming uncertainty and managing risk, as well as the specific means by which these are to be accomplished, are hallmark projects of modernity, and control has been a conceptual pillar in a multiplicity of modern intellectual projects, including science.

It is too simplistic to attribute these assumptions solely to Enlightenment humanism, however. Michel Foucault points out, for example, that although the body takes on new significance as a locus of control in the seventeenth and eighteenth century, long before then it had been "in the grip of very strict powers, which imposed on it constraints, prohibitions or obligations."[8] He argues that what changed in the seventeenth and eighteenth century were the scale of control, the object of control, and the modality, the latter of which he describes as "an uninterrupted, constant coercion, supervising the processes of the activity rather than its result."[9]

ILLUSIONS OF CONTROL

The concept of "illusion of control" has not been discussed much in education, but it has been employed in a host of other fields, including psychology; behavioral finance; sociology; information technology; decision sciences; philosophy; gaming theory; and Buddhist, Taoist, and Christian thought. Depending on the interpretation, the phrase may or may not cast doubt on the assumption that control of self, others, and surroundings is possible. If it means that the mechanism for achieving control is the creation of an illusion of control, then the assumption that control is possible goes unquestioned. However, "control is an illusion" can also mean that control is illusory and unachievable.

Many disciplines, notably psychology, have defined "illusion of control" either as an exaggerated or unrealistic concept of when control of self, others, and surroundings is possible, or as people's belief that "they exert some degree of influence over uncontrollable situations."[10] These definitions stem largely from a paradigm articulated in 1975 by Harvard psychologist Ellen Langer[11] and are based on the assumptions that control is possible, at least in some instances; that "realistic" assessments of ability to control can be ascertained; and that the conditions under which control is achievable can be accurately determined.

CONTROL AND MANAGEMENT DISCOURSE IN FIELDS OTHER THAN EDUCATION

To provide a context for discussion of classroom control and management, I will briefly present samples of control and management discourse found in the ostensibly disparate fields of philosophy, psychology, medicine, insurance, bioengineering, ecology, and United States policy analysis.

Western Modernity, Philosophy, and Control. John Dewey and Michel Foucault, two twentieth-century philosophers whose work has been widely read in education, both address control in Western modernity. The excerpts by Dewey that I will consider appear in his 1929 book *The Quest for Certainty*. Social theorist Peter Wagner notes that this book was published just days prior to the 1929 stock market crash, and he observes that Dewey's "epistemological critique of a misguided quest for certainty was voiced against the background of the experience of insurmountable uncertainty in socio-political life."[12] Dewey recognizes the futility of efforts to eliminate all uncertainty, as is evident in his statement, "Any philosophy that in its quest for certainty ignores the reality of the uncertain in the ongoing processes of nature denies the conditions out of which it arises."[13] Furthermore, he also acknowledges the limits of human control:

> Fortune rather than our own intent and act determines eventual success and failure. The pathos of unfulfilled expectation, the tragedy of defeated purpose and ideals, the catastrophes of accident, are the commonplaces of all comment on the human scene. . . . Judging, planning, choice, no matter how thoroughly conducted, and action no matter how prudently executed, never are the sole determinants of any outcome. Alien and indifferent natural forces, unforeseeable conditions enter in and have a decisive voice.[14]

Nevertheless, he equates the ostensibly progressive modern West with control and portrays such control positively. For example, he suggests that modern technologies offer the measure of certainty that differentiates "contemporary" man (the "we" in the following passage) from the "primitive":

> We have attained, at least subconsciously, a certain feeling of confidence; a feeling that control of the main conditions of fortune is to an appreciable degree passing into our own hands. We live surrounded with the protection of thousands of arts and we have devised schemes of insurance which mitigate and distribute the evils which accrue. Barring the fears which war leaves in its train, it is perhaps a safe speculation that if contemporary western man were completely deprived of all the old beliefs about knowledge and actions he would assume, with a fair degree of confidence, that it lies within his power to achieve a reasonable degree of security in life.[15]

He constructs a binary that contrasts a controlled contemporary life, portrayed positively, with a grim and chaotic primitive past:

> For primitive men had none of the elaborate arts of protection and use which we now enjoy and no confidence in his own powers when they were reinforced by appliances of art. He lived under conditions in which he was extraordinarily exposed to peril, and at the same time he was without the means of defense which are to-day matters of course. Most of our simplest tools and utensils did not exist; there was no accurate foresight; men faced the forces of nature in a state of nakedness which was more than physical; save under unusually benign conditions he was beset with dangers that knew no remission. In consequence, mystery attended experiences of good and evil; they could not be traced to their natural causes and they seemed to be the dispensations, the gifts and the inflictions, of powers beyond possibility of control. The precarious crises of birth, puberty, illness, death, war, famine, plague, the uncertainties of the hunt, the vicissitudes of climate and the great seasonal changes, kept imagination occupied with the uncertain.[16]

Thus, Dewey suggests that one characteristic distinguishing primitive from contemporary man is the latter's access to means of protection from peril. Increased certainty and control are not merely associated with modernity but become the very characteristics that differentiate it from an unenlightened, naked primitivism. Thanks presumably to modern technologies, "the precarious crises of birth, puberty, illness, death, war, famine, plague, the uncertainties of the hunt, the vicissitudes of climate and the great seasonal changes" need no longer occupy the imagination of contemporary man; indeed, experience of these things becomes a challenge to contemporary man's self definition, a sign of regression to a less evolved primitivism. Dewey lavishes praise on the evolved form contemporary man has taken; his binary relegates those who cannot protect themselves from peril to the lesser category labeled "primitive."

Finally, Dewey equates uncertainty with peril and evil; he writes, "The quest for certainty is a quest for a peace which is assured, an object which is unqualified by risk and the shadow of fear which action casts. For it is not uncertainty *per*

se which men dislike, but the fact that uncertainty involves us in peril of evils."[17] Significantly, he does not temper this assertion by acknowledging that uncertainty can also involve us in happiness and good; the closest he comes to doing so is his claim that uncertainty is part of nature, which can also be a potential source of security and safety:

> The conditions and processes of nature generate uncertainty and its risks as truly as nature affords security and means of insurance against perils. Nature is characterized by a constant mixture of the precarious and the stable. This mixture gives poignancy to existence. . . .[18]

In *The History of Sexuality*, published in 1976, Foucault alludes to the limits of governmentality in a discussion of the differences between sovereign or juridical power and the more pastoral modern technologies that emerged in the seventeenth century. Initially describing one characteristic of sovereign power as "the right to decide life and death,"[19] which is clearly an overstatement, he quickly narrows his description of sovereign power's scope: "The right which was formulated as the 'power of life and death' was in reality the right to *take* life or *let* live."[20] He uses the term "dissymmetrical" to describe the reaches of this sovereign power but says little about the domains that sovereign power cannot touch.[21] Similarly, Foucault claims that "the old power of death that symbolized sovereign power"[22] was replaced by a new "power over life,"[23] another overstated assertion that he again modifies, saying that it is in reality the "power to *foster* life or *disallow* it to the point of death."[24] According to Foucault, "taking charge of life," "the administration of bodies, and the calculated management of life" are the very hallmarks of modernity.[25] Once again, he has little to say about the dissymmetrical spaces that are beyond the reach of modern forms of governance. However, in one passage, Foucault, like Dewey, represents the alterity to Western modernity as quite terrifying and pathological. Epidemics, famine, and "the menace of death" are among the "profound threats" that "economic development," and "an increase in productivity"–that is, modernity–stemmed. He describes a watershed moment when in the Western world, at least, control began to be exercised over life:

> [T]he pressure exerted by the biological on the historical had remained very strong for thousands of years; epidemics and famine were the two great dramatic forms of this relationship that was always dominated by the menace of death. But through a circular process, the economic–and primarily agricultural–development of the eighteenth century, and an increase in productivity and resources even more rapid than the demographic growth it encouraged, allowed a measure of relief from these profound threats: despite some renewed outbreaks, the period of great ravages from starvation and plague had come to a close before the French Revolution; death was ceasing to tor-

ment life so directly. But at the same time, the development of the different fields of knowledge concerned with life in general, the improvement of agricultural techniques, and the observations and measures relative to man's life and survival contributed to this relaxation: a *relative* [my emphasis] control over life averted some of the imminent risks of death. In the space for movement thus conquered, and broadening and organizing that space, methods of power and knowledge assumed responsibility for the life processes and undertook to control and modify them.[26]

Foucault briefly acknowledges the limits of power, for example, by referring to a *relative* control over life (above) and by asserting (below) that life constantly escapes the "techniques that govern and administer it," but he quickly adds that control is even more limited outside what he calls the Western world:

It is not that life has been totally integrated into techniques that govern and administer it; it constantly escapes them. *Outside the Western world* [my emphasis], famine exists, on a greater scale than ever; and the biological risks confronting the species are perhaps greater, and certainly more serious, than before the birth of microbiology. But what might be called a society's "threshold of modernity" has been reached when the life of the species is wagered on its own political strategies.[27]

Thus, as Foucault asserts that modernity brought changes both in the scope and the technologies of governance, he acknowledges but devotes little attention to the dimensions of life and death that constantly escape the technologies that govern them. Although Foucault and Dewey were engaged in somewhat different modern projects, they share some assumptions, especially concerning governance's alterities.

Because specific logics of control often have been associated with the Western world, with "the East" articulated as "the West's" alterity, I turned to one strand of Eastern thinking, Taoism, to discover whether it might offer an alternative logic. The sources I consulted indicate that different streams of Taoist thinking make different truth claims about control and self governance. Thus, global statements about Taoism's understanding of control would be reductive. Two brief passages on the subject of *wu wei*, or "non-action," exemplify contrasting views. Elizabeth Shadish paradoxically asserts that through self governance, a person can achieve control by learning to abdicate control:

"Non-active" effectiveness requires years of discipline and training to occur. The point here is only that, once such expertise is achieved, you control by not being in control; you win, by not trying to defeat but by using the actions of the opponent in responsive ways. You act, by allowing, and then "going with the flow."[28]

Taoist priest Ted Kardash is more ambiguous and does not link *wu wei* to an ultimate goal, including control:

> To allow oneself to *"wander without purpose"* can be frightening because it challenges some of our most basic assumptions about life, about who we are as humans, and about our role in the world. From a Taoist point of view it is our cherished beliefs–that we exist as separate beings, that we can exercise willful control over all situations, and that our role is to conquer our environment–that lead to a state of disharmony and imbalance.[29]

Thus, while the first passage does not challenge the premise that control is achievable and simply suggests a different means of achieving it, the second underscores the importance of not having *any* purpose in mind, including control, and it does not promise that control will be an end result of *wu wei*.

Psychological Discourse on Illusions of Control. Psychological discussion of illusions of control generally is premised on a dichotomy between what are called accurate and exaggerated concepts of reality, with research often focusing on whether wanting control or having illusions of control is beneficial and "normal." Significantly, an established body of psychological scholarship views both a need for control and illusions of control positively, that is, as normal and universal. [30] For example, Langer underscores the "normalcy" of wanting control by asserting that people (and in the absence of a qualifier, Langer presumably is referring to *all* people) are inclined and motivated to control their environment:

> People are motivated to control their environment. The importance of control in this context has been widely discussed by both therapists and social science researchers. . . . [M]ost social scientists agree that there is a motivation to master one's environment, and a complete mastery would include the ability to "beat the odds," that is, to control chance events. The more difficult a problem is, the more competent one feels in being able to solve it. The greatest satisfaction or feeling of competence would therefore result from being able to control the seemingly uncontrollable.[31]

In a 1988 study, Shelley Taylor and Jonathon Brown questioned the established psychological premise that an accurate view of reality is the "hallmark of mental health," arguing instead that *illusions*, defined as "exaggerated perceptions of control" and unrealistic optimism, are not only "characteristic of normal human thought" but also *necessary* for normal mental health.[32] Put in slightly different terms, this understanding posits that normal humans possess a veil of illusion, which serves as a valuable and necessary protection from the potentially paralyzing effects of constant awareness of life's dangers. By contrast, the absence of such a veil leads to illness or other forms of pathology.

Another established body of psychological scholarship refutes the normalcy of both a need for control and illusions of control, arguing instead that cultural factors come into play; some studies point out the potentially negative effects of such illusions.[33] For example, Miron Zuckerman et al. measured perceived control over what were described as controllable and uncontrollable events, basing their work on the premise that "the need for control and the positive consequences associated with perceived control are less pervasive than originally thought."[34] They cite prior research that suggests "when the situation is truly uncontrollable, . . . giving up is a more optimal response than perseverance."[35] They concluded that people with very high unrealistic control beliefs tended to persevere on uncontrollable tasks; they described conditions in which unrealistic control belief predicted "poorer future health" and "maladaptive outcomes."[36] Specifically, high unrealistic control beliefs, when combined with low realistic control beliefs, predicted poorer future mental and physical health.[37]

Significantly, like many other psychologists studying illusions of control, Zuckerman et al. assumed that determinations of what constitutes a controllable event are universal. This assumption is culture bound, as is their scale for measuring whether study participants exhibited realistic control, defined as "perceived control over controllable events."[38] The following statements, reminiscent of Horatio Alger, were included in the scale: "Success in life depends mostly on how hard you study and work. If I try very hard, most of my plans will work out. To achieve your goals, you need to know the right people."[39] According to the scale, it is not realistic to believe that knowing the right people plays a critical role in achieving one's goals; it is realistic to believe that success is controllable and that hard work–not luck or other external factors–is the principal source of success. Conceivably, however, social location produces other realities. For example racism, classism, and sexism can attenuate or even cancel out the effects of hard work. Furthermore, having connections (sometimes more benignly described as networking) often is an accoutrement of privilege that can significantly enhance a person's chances of success. It is disingenuous for people of privilege to suggest that success is the result of hard work–not connections–when connections may be among the very privileges that factored into their own success. The subjects in the study were university students, which may help explain cultural bias in the "realistic control" scale, and the researchers admit that the study's results may not be generalizable. Nevertheless, such caveats often are ignored.

In a study focusing on maternal self-efficacy and illusory control, Wilberta Donovan, Lewis Leavitt, and Reghan Walsh reported that "the positive attributes of illusory control are culturally bound, and that *high* illusory control is likely to interfere with social exchange, thereby hindering the establishment of successful relationships."[40] In a related study they concluded that mothers exhibiting high illusory control were least sensitive to infant cries.[41] In a third study by the same

authors, maternal illusory control predicted toddler compliance, the researchers reporting:

> Toddlers of mothers in the low and high illusion-of-control groups were more likely to be categorized as highly defiant than were toddlers of mothers in the moderate-illusion group. Mothers with high illusory control were most likely to use a high power-assertion strategy (negative control), and when negotiating, their toddlers' expression of autonomy was most likely to escalate into defiance.[42]

Thus, psychology forwards and supports whole systems of reasoning about control, some of which are in conflict with one another, and there is evidence within the field to both support and refute the value of illusions of control. Significantly, researchers in psychology often have constructed different visions of normalcy; nevertheless, members of both camps base their conclusions on the assumption that accurate and exaggerated senses of reality exist, are universal, and can be measured.

Medical Discourse on the Control of Life and Disease. Echoing assertions made in one of the psychological camps, British physician and epidemiologist Michael Marmot maintains that control, or at least the perception of control, is a critical requirement not only for psychological health, but physical health, as well. In *The Status Syndrome: How Social Standing Affects Our Health and Longevity*, Marmot claims that in many cultures, control over life is inequitably distributed over the social strata, which results in differential health outcomes:

> [F]or people above a threshold of material well-being, another kind of well-being is central. Autonomy–how much control you have over your life–and the opportunities you have for full social engagement and participation are crucial for health, well-being, and longevity. It is inequality in these that plays a big part in producing the social gradient in health. Degrees of control and participation underlie the status syndrome.[43]

He presents a substantial body of research to support this assertion, including a study which concluded that "people whose jobs are characterized by high demands and low control have a higher risk of developing coronary heart disease than others in jobs with more control."[44] A study he conducted in Eastern Europe prompted him to suggest the following causal chain: "The greater the degree of inequality, the less control people had over their lives; the less control, the worse their health."[45] He argues that "a more just distribution of capabilities–control and social engagement–will lead to a more equal distribution of health."[46] However, he also asserts that the degree to which a culture is hierarchical and the

amount of emphasis that is placed on cooperation and trust in a culture may have an effect on health: "If hierarchies are bad for health and cooperation and trust good for health, the level of health that we as individuals experience may depend on the balance between hierarchy and cooperation and trust of a society."[47] If this is the case, however, then the level of cooperation and trust in a culture, not specifically an individual's control or perceived control, may be the key to health. Thus, I assert that Marmot's research raises the question of whether a need for control or for the perception of being in control is truly universal or whether it may be culturally mediated. For example, in a more equitable culture, would a need for control or for a perception of control be less important than it would be in a less equitable culture? In what ways does the assumption that control or an illusion of control is necessary for physical and mental health contribute to the creation and perpetuation both of inequities and of highly inequitable cultures?

Reminiscent of Dewey or Foucault, one medical source I examined, physician and medical historian Howard Markel's book *When Germs Travel: Six Major Epidemics That Have Invaded America and the Fears They Have Unleashed*, supported the assumption that the world, especially the developing world, is a dangerous place teeming with perils in need of control. Markel writes:

> [I]n the twenty-first century, the global village is host to a burgeoning community of dangerous and contagious microbes, some that kill relatively few in spectacular fashion, such as Ebola virus and SARS, and others such as tuberculosis that each year quietly, relentlessly, take the lives of millions. These pathogens demand far more respect and action than mere attempts at isolation or foolhardy efforts to build a wall around our nation.[48]

A common claim is that in recent times, disease control has become more achievable and risk more manageable due to "advances" in the technologies of control. This assertion is evident in Markel's statement that "over the past century, sophisticated means of international public health surveillance and disease control have developed through experience, trial, and error."[49] Thus, the promise of a manageable, if not completely controllable, modern present and future is contrasted to a dangerously ungovernable past. Even Markel recognizes the limits of governability, however, his book closing with the statement, "We will never completely conquer the microbial world."[50]

Risk and Risk Management: Taming Uncertainty in Insurance and Bioengineering. The terms "management" and "risk" often appear in education discourse; in a variety of other fields they are joined to form "risk management," variously described as a field of study or a decision-making process. One source defines risk management as "the systematic application of management poli-

cies, procedures and practices to the tasks of identifying, analysing, evaluating, treating and monitoring risk."[51] It is often considered to be part of a continuous process of assessing, predicting, and managing outcomes. The term is found in fields ranging from insurance to toxicology.[52] The insurance industry defines risk management as a way of handling risk by transferring it.[53] Risk management is the domain of actuaries, who use "statistics to compute insurance risks and premiums."[54] H. Felix Kloman offers the following constellation of definitions and states that its multiple forms often confuse the general public:

> To many social analysts, politicians, and academics it is the management of environmental and nuclear risks, those technology-generated macro-risks that appear to threaten our existence. To bankers and financial officers it is the sophisticated use of such techniques as currency hedging and interest rate swaps. To insurance buyers and sellers it is coordination of insurable risks and the reduction of insurance costs. To hospital administrators it may mean "quality assurance." To safety professionals it is reducing accidents and injuries.[55]

What links all the forms that Kloman describes, however, is danger. Unlike Dewey, Kloman paints the present as more uncertain than the past: "The rise of multiple forms of risk management is hardly surprising. It is in large measure a growing response to the world of 'unprecedented uncertainty' in which we live."[56]

Reminiscent of Dewey's discussion, a report issued by PricewaterhouseCoopers states that one of the purposes of risk management is "taming uncertainty."[57] If risk is viewed as "exposure to the chance of injury or loss,"[58] then presumably risk management is concerned with regulating the potentially dangerous dimensions of uncertainty. Thus, the PricewaterhouseCoopers articulation of risk management inextricably links uncertainty to danger and constructs the taming of uncertainty as a valuable project. That the technologies of risk management often are effective is evidenced by the insurance industry's profits. Grand-scale catastrophic events such as Hurricane Katrina point out their fallibility, however, and when a catastrophe happens, the low probability of its occurrence is moot.

Law professor Tom Baker points out that insurance comes with a promise of control: "The promise of insurance and other forms of risk management is gaining a measure of control over an uncertain world."[59] However, Baker's discussion focuses primarily on cultural variations in how insurance is understood, and his assertion that differences exist invites contemplation of whether insurance bears such a promise in all cultures or whether it is more narrowly characteristic of what Baker calls "the typical American understanding."[60] If insurance is not universally premised on such a promise, then the question arises of why this promise would appeal to some cultures but not others, as well as to whom.

In addition to being part of the conversation in the insurance industry, risk and risk management appear in bioengineering discourse. For example, sociologist and biologist Nikolas Rose speaks of risk in his analysis of the ways that new developments in biology are generating new regulatory possibilities and technologies in the twenty-first century. Rose claims that "for over 150 years, risk thinking has been central to biopolitics."[61] Thus, he connects risk thinking to modernity, and yet he also suggests that a "distinctive type of risk politics" is one of the unique elements of current biopolitics.[62] Using the same phrase found in the PricewaterhouseCoopers report, "taming uncertainty," Rose describes risk:

> Risk, here, is a style of thinking and acting that tries to tame uncertainty by expertise, to bring future harms and benefits into present calculations, and to shape decisions in the present in terms of questions about the future, about the benefits that can be achieved, and the harms that can be averted, minimised or managed.[63]

Significantly, Rose states that risk thinking takes into account both potential dangers and potential benefits.

He describes several distinct but interrelated kinds of risk thinking associated with current bioengineering projects; each, he argues has a different "logic of control."[64] One kind focuses on habitat risk and "consists of strategies that seek to identify, manage and reduce aggregate levels of harm by seeking to modify the factors within a population, a geographical area, a portion of the life course, associated with increased levels of risk."[65] A second kind is group risk, which "seeks to identify those in risk groups through explicit probabilistic and epidemiological techniques, and to identify factors associated with higher risks of particular forms of ill health, reproductive problems or other forms of pathology."[66] Rose points out that today "the identification of group risk is rarely seen as sufficient in itself."[67] Rather, the focus often moves away from the group and onto "individual susceptibility," that is, onto the risk posed to the individual.[68] Even though different and new kinds of risk thinking may proliferate in the twentieth-first century, regulation, ostensibly in the name of avoiding present or potential danger, is common to all of them.

Thus, specific assumptions about control scaffold risk management; without this scaffolding the insurance industry and a host of other corporate and governmental projects would disappear. For example, risk management is premised on an ability to predict and plan for outcomes in advance. One central assumption is that it is possible to accurately identify the potentially dangerous dimensions of uncertainty, another is that risk can be managed, and a third is that risk management is a step on a path toward promised risk control or the total elimination of risk in the future.

Underscoring his assertion that the world is more uncertain and filled with

risk than ever before, Kloman challenges conventional thinking in insurance risk, however, arguing that the industry is operating from a set of assumptions that does not equip it to work effectively in an increasingly uncertain world. The field, he states, has tried "to build its edifice on the sands of certainty and predictability in a world in which uncertainty and unpredictability are the bedrocks."[69] He calls for a new kind of risk management in the insurance industry, claiming that the field needs to develop "new ways of grappling with uncertainty,"[70] specifically, a different attitude about risk: "The challenge of the next decade will be to learn how to live with uncertainty and to develop means of managing our lives and organizations so that risk can become an acceptable stimulus rather than an unacceptable threat."[71] What is unusual about Kloman's statement is its recognition of the potential productivity of uncertainty. Risk is productive in the sense that effective risk management can result in huge financial gains. Risk management is the insurance industry's *raison d'être*, the goal being to tame uncertainty, not to eliminate it altogether. In the absence of danger and risk, the industry would vanish.

The new risk management Kloman envisions is not merely a response to a new present filled with unprecedented uncertainty. In addition, his model ostensibly can be employed to plan and prepare now for an uncertain future.[72] If the present level of uncertainty is, indeed, as unprecedented as he claims, however, then modern regulatory projects may be unequal to the challenges they face.

As I stated earlier, bioengineering is among the scientific projects supported and advanced by specific assumptions about control, in particular, the understanding that control is both potentially achievable through modern technology and beneficial. Rose suggests that in addition to exhibiting a distinctive kind of risk politics, twenty-first-century regulatory biopolitics are characterized by a shift in scale, away from the body as a whole and toward control of the genetic body on the molecular level:[73] "The political vocation of the life sciences today is tied to the belief that in most, maybe all cases, if not now then in the future, the biologically risky or at risk individual, once identified and assessed, may be treated or transformed by medical intervention at the molecular level."[74] Part of this new biopolitics is the hope that in the future, knowledge of genetics can accomplish not only genetic diagnosis but also genetic repair.[75] Rose argues that when "technological intervention is considered impossible,"–when there is no hope for management, control, or inclusion through "normalization"–then exclusion occurs.[76]

The potentially lucrative transgenic food industry is another manifestation of twenty-first century life science on the molecular level that flourishes, in part, because of the assumption that risk can be calculated, predicted, or identified in advance and then either eliminated or controlled. Confidence about current and future ability to predict and control is a cornerstone of transgenic food

initiatives. To challenge fundamental assumptions on which these projects are premised is to challenge their wisdom and continuance. However, some critics *have* expressed doubts, calling genetic engineering a broad-scale experiment with potentially negative effects that have been both under-investigated and underestimated. They point, for example, to a lawsuit Monsanto Corporation filed against a Canadian farmer who was accused of illegally planting (and in essence stealing) Monsanto's genetically modified canola.[77] The farmer claimed that the wind had blown the genetically modified seed from a neighboring property where the canola was growing legally. The accused farmer countersued, arguing that Monsanto's seed had contaminated his crops. In a legal brief appearing in the *Duke Law and Technology Review*, Jill Sudduth writes that efforts to contain genetically modified seed may be futile:

> Many American farmers have begun to grow and market foods derived from genetically modified seeds, but many are resisting this technology. . . . [T]heir resistance may be futile. Examples show that genetically engineered seeds can contaminate organic fields through wind or animal distribution despite such precautions as tree line barriers.[78]

Food writer David Shenk uses the canola incident to argue that products of controlled genetic modification, when unleashed into the environment, may be grand-scale experiments with the potential to create unanticipated, uncontrollable catastrophes:

> The combined force of life-altering technology, powerful legal armor, and corporate consolidation is putting agriculture and all of us who depend on it onto a course that is unpredictable and precarious. "We have a history in this country of cheerleading science just because it is science, without having a real understanding of what that science is doing for us or to us," says the Center for Food Safety's Craig Culp. "With transgenic organisms, we are at a critical juncture. At some point we will have lost control of them."[79]

Schenk is not a scientist, however; within this discussion, speaking as a scientist may increase a critic's credibility and perhaps reduce the chances of being dismissed as a kook.

Even though much of Rose's essay focuses on the *regulatory potential* of "new biological knowledges,"[80] he closes with a statement echoing the assertion that attempts to control will spawn new uncertainties: "We do not know how these new biological knowledges will be taken up by [sic], or by whom and with what consequences."[81] Thus, Rose conceptualizes uncertainty not as an entity that can be slowly but steadily reduced, but as a part of a productive, perpetually morphing, self-regenerating process.

Of Rats and Mongooses: Ecology and Control. Ecology is another field where discussions of control abound. Some of the discussion focuses on control of introduced invasive species that can destroy whole ecosystems. Ecologists concerned about the environmental impact of these ecological bullies try to eliminate or at least control invasive populations. Alan Burdick's book *Out of Eden: An Odyssey of Ecological Invasion* documents some of these efforts; Burdick specifically focuses on attempts to eliminate or contain introduced species that threaten to destroy extant flora and fauna in Hawaii, Tasmania, Guam, and San Francisco. Among the species he discusses are the Australian brown tree snake, which has overrun Guam and could similarly descend on Hawaii.[82] Using bellicose terms such as "invasion," "battle," and "fight," descriptions of ecologists' attempts often construct a battle of good against evil. For example, Valerie Monson, staff writer with *The Maui News,* calls invasive species "terrorists that take over forests and pastures."[83]

Burdick also discusses biocontrol–the introduction of a predator to control or eliminate an invasive pest–a practice that has been widely used in Hawaii. Monson provides several examples of biocontrol. In 1883 the mongoose was brought to Hawaii to control the rats that arrived as stowaways on ships; in 1890 a beetle was "released . . . to inhibit a scale that attacked citrus"; and more recently a fungus was introduced to control miconia, a non-native invasive shrub.[84] Biocontrol has been popular, in part, because it commonly is associated with a level of safety not ascribed to manufactured control methods.

At least three observations concerning ecology and control are germane to my critical analysis. First, the ability to eliminate or even control invasives often has been grossly overestimated, regardless of the control method employed. Next, universal distinctions cannot be drawn between what is or is not controllable because what is controllable in one context can become completely uncontrollable in another: "The consensus among invasion scientists today is that, given the right opportunity, any native species can become an invader in some environment in the world; and any native ecosystem can be invaded by something."[85] The third observation concerns the limited predictability of the effects of control techniques, biocontrol, in particular. Hawaii has experienced many unanticipated negative effects of biocontrol, one notorious example being the rat-eating mongoose's devastating effect on Hawaii's birds. If control of invasives is articulated as a battle of good against evil, then in the case of the mongoose, a well-intended ostensibly good action had at least as many negative consequences as did the targeted evil. Thus, especially in complex systems or situations, attempts to tame some uncertainties may create others that may not be predictable or even imagined, let alone managed. Burdick states that Frank Howarth, an entomologist and critic of biocontrol, poses this question: "If it is impossible to accurately

predict what an organism will do when introduced to a new environment, and if, moreover, every new invasion opens up new opportunities for subsequent invasions, how can anyone purposefully introduce any organism and state confidently that it will stay contained?"[86]

Critical Policy Analysis: Control May Be an Illusion. In another discursive arena, policy analyst Seyom Brown employs "illusion of control" to describe what he considers to be an inaccurate series of assumptions, currently driving United States international policy, concerning the controllability of war and of the world.[87] Published just prior to the start of the second Gulf War, Brown's prophetic book pinpoints possible negative consequences of the nation's heavy investment in such an illusion. Brown states that international relations are becoming increasingly polyarchic, that is, "characterized by diverse alignments and adversary relationships subject to change issue by issue and lacking a dominant axis of cooperation and conflict."[88] He also claims there has been an increased tendency on the part of the United States to use military force in foreign policy; he warns, however, that "to expect to gain and maintain control through military powers and muscle flexing could turn out to be a dangerous illusion."[89] He describes a recent technological revolution in military affairs (RMA) in the United States, which "promises to bring an unprecedented degree of controllability to the conduct of war."[90] The RMA ostensibly has introduced the possibility of a "clean" war, that is, a war with few or no ally casualties.[91] According to Brown, this possibility, combined with a desire in the United States to bring the world under control, increases the chances of the nation using military force in the present and future:

> The desire in the United States to bring a chaotic world under control and the confidence that innovations in military weaponry make it possible to employ force flexibly and efficiently, precisely calibrated to meet the country's political objectives, portend its frequent use as an instrument of foreign policy in the present and near-term future.[92]

He argues, however, that "by its very nature, war is a volatile phenomenon that resists control"[93] and that confidence in the RMA's ability to control war is misplaced. He maintains that in this instance, illusions of control are dangerous and are leading the United States to make regrettable foreign-policy decisions:

> [I]n the increasingly polyarchic world of the twenty-first century the assumption that international terrorist activities, wars, and civil conflicts that threaten U.S. interests can be controlled by employing the new military technologies is unwarranted and can lead to unwise decisionmaking. A foreign policy animated by optimistic estimates of the efficacy of force, particu-

larly if premised on the RMA-generated expectation of highly controllable military operations, is likely to pull the nation into excessive commitments and imprudent action.[94]

Thus, his argument is consonant with the assertions of those psychologists who claim that illusions of control may produce regrettable outcomes because they lead to attempts at exercising power an individual or group may not have. Much of Brown's book is devoted to developing "the argument that the premise of control may turn out to be an illusion."[95]

Control Metaphors and Terror. In his description of linguistic and visual metaphors, George Lakoff observes that the fall of the Twin Towers on September 11, 2001, had terrifying symbolic meaning, representing a loss of control: "Control is up: [In a tower] you have control over the situation; you're on top of things. This has always been an important basis of towers as symbols of power. In this case, the toppling of the towers meant loss of control, loss of power."[96] He also associates towers with phallic power, adding that "their collapse reinforces the idea of loss of power."[97] In other words, the planes ripped holes in the United States' collective illusions of control. A journal entry I made two weeks after the tragedy supports Lakoff's assertions:

> I teach an evening course on Monday nights, and on September 17 I headed over to the [student] Union for a cup of soup before class. Across the hall from the Rattskeller is a video arcade, which . . . was filled with the usual male aficionados; the hangout clattered and buzzed. . . . A young man about twenty years old was holding a joy stick shaped like a machine gun. He was pointing it at a screen displaying aircraft attacking tall buildings in a city. At first I was repulsed. How could anyone be shooting at anything at a time like this, I mused? Second thought, he is attempting to regain his sense of control; had he been there, he, the hero, would have systematically taken out those planes. As I walked to class, I realized that a year from now, the young man may be holding a real machine gun in his hands, and I shuddered. . . .

Lakoff writes that the "security as containment" metaphor is powerful even if security measures won't work: "Most security experts say that there is no sure way to keep terrorists out or to deny them the use of some weapon or other; a determined, well-financed terrorist organization can penetrate any security system."[98]

In the aftermath, the events of September 11, 2001 were usually portrayed as a terrifying attack by terrorists and an affront to the nation. Interpreted differently, they could have served as an opportunity for collective interrogation of the illusions of control that, according to Seyom Brown, undergird United States international policy. Instead, however, they were used as justification for accelerating

the nation down a path Brown considers unwise if not downright foolhardy, and they were followed by almost maniacal attempts to recover and reinforce those same control illusions.

Control, Technologies of the Self, and Social Location. As my postpartum vignette indicates, when I became painfully aware of the limits of modern scientific technologies, I turned to the modern technologies of self governance. During my recuperation, I vigorously attempted to regain a sense of self control and initially, at least, took comfort in an illusion of control. A few years after my illness I wrote:

> My nine-month period of recuperation was an odd dance. I had heard the death dogs howl, and they haunted my dreams. Setbacks followed one after another. Because doctors had transfused me conservatively out of concern for the safety of the blood supply, I was severely anemic. Weakened, I developed an infection that landed me back in the hospital just days after I had been discharged. As I struggled with ongoing health problems that prompted five trips to the emergency room and threats of yet more hospitalization, I also had to contend with the possibility that I had contracted HIV or hepatitis from the massive amounts of blood products I had been given. Although the risk of my contracting either disease was slim, it was statistically greater than my chances of developing the postpartum complications in the first place. No longer comforted by statistical probability, I adopted the assumption that if it can happen, it probably will happen to me.
>
> Ironically, I clung to any indication that I could have a shred of control of my life, all the while suspecting that notions of control were lies. When I wasn't cherishing the preservation of my life and the beauty of my new family, I was experiencing a terror of life in general. Jim and I characterized my (and sometimes his) beliefs with the phrase, "There is a sniper behind every tree." My role as a parent was to be ever on the lookout for snipers. I was afraid Katie would catch a dread disease from some lout and decided the world was full of uncaring louts who sneezed or coughed all over her. Faced with a world that seemed callous and threatening, I waged my battle for control on the microscopic level. Armed with antibacterial hand sanitizer (which I slathered on her whenever some lout had overstepped his or her bounds, all the while wondering whether the sanitizer might do more harm than the germs themselves) I warily ventured out. I attempted to maintain the campaign of constant vigilance until both physically and emotionally exhausted, I realized that my crusade probably was not helping and quite possibly was harming Katie. The "cure" was possibly worse than the "disease" itself, or rather, it no longer was clear what was the disease and what the cure. "Do we want to infect her with a fear of living?" Jim patiently asked. A long-time friend observed, "You can try to protect Katie from all kinds of things that you think you see or believe you can anticipate, only to be blindsided by something you never imagined." Slowly, I began to recognize

> *that my powers to control what I perceived to be a dangerous and frightening*
> *world were not limitless and that my efforts at control were, at best, wasted*
> *energy, and at worst, doing more harm than good.*

Clearly, however, prior to the trauma, I had grown accustomed to thinking of myself as a powerful person living in a mighty nation where technologies of the self and scientific technologies promised such a level of control that safety was reasonably assured. The trauma shook that confidence. In response, I tried to be precisely the kind of mother Judith Warner describes in her book *Perfect Madness: Motherhood in the Age of Anxiety*: "Ever vigilant. Ever devoted. Ever in control."[99] The title of Warner's book implies, however, that at other times and in other places, motherhood was, and is, different. Indeed, in *Perfect Madness* Warner contrasts her experiences as a mother in the United States with those when she lived in France. Thus, reflection on Warner's assertions invites consideration of the role that location played–physical, temporal, and social location–not in only which discourses were dominant and available to me, but also in which ones I took up and how I took them up. For example, my decision to control danger by slathering on hand sanitizer was not a mere accident or solely a consequence of individual choice; consistent with Rose's assertion that regulatory work has changed in scale, my microscopic venue was tied to a particular social and physical location, and to a present with options that were not available to my mother when I was child.

From early on, I had been taught specific beliefs about individual efficacy, had been told that I could control my future, and had been warned that a loss of self control might destroy all chance for success or upward mobility. My temporal, cultural, and physical location created a climate in which the perception that I have control of my body and my child's environment flourished relatively undeterred. Indeed, my expansive confidence in my own efficacy may be part of a distinct national identity, a possibility introduced not only by Warner's book, but also by oncologist and researcher D. Barry Boyd, who observed that there are differences between European and United States women in their perceptions of why they developed breast cancer: "Americans, in contrast to Europeans, feel like they can control their fate. . . . There is little sense that there are some things which they don't have control of."[100]

The sorting and ordering that materializes bodies as raced, gendered, classed, abled, and nationalized, and which rationalizes differential distribution of resources, played a significant role in whether I had access to specific understandings of control and to the means to respond in particular ways. Thus, major dominations are scaffolded by particular understandings of who is or is not entitled or worthy to be in control of self or others, as well as of which bodies are to be controlled. My expansive views on control had been cultivated and maintained

by the privilege that accompanied my location, and my privileged location influenced my ability to act on those views. Recognizing that my understandings were situated invites contemplation of how these views affect individuals and groups who are not similarly situated. For example, illusions of control can be a component of "choice" discourse that identifies the locus of control as the individual. This discourse justifies assigning blame to the individual while it draws attention away from the possibility of collective culpability and responsibility. If illusions of control are entitlements of privilege that help maintain privilege, however, then interrogating or deflating these illusions may be one of the responsibilities of privilege for those who seek a more equitable distribution of physical and cultural capital.

NOTES

[1]Caption on the print "The Illusion of Control," by artist Brian Andreas.

[2]These vignettes use pseudonyms.

[3]My assertions about the bodies described in the vignettes are influenced by the work of Judith Butler, in *Bodies That Matter: On the Discursive Limits of 'Sex'* (New York: Routledge, 1993). See, in particular, her discussion of what she calls a "radical resignification of the symbolic domain," 22; and her description of the production of a domain of exclusion, 15–16.

[4]For a discussion of power and tactical productivity, see Michel Foucault, *The History of Sexuality: An Introduction: Volume 1,* trans. Robert Hurley (Pantheon, 1978; rpt. New York: Vintage, 1990), 102.

[5]JoAn D. Criddle, *To Destroy You Is No Loss: The Odyssey of a Cambodian Family* ([New York]: Atlantic Monthly Press, 1987; Dixon, CA: East/West Publishing, 1996).

[6]Michael W. Apple, *Official Knowledge: Democratic Education in a Conservative Age* (New York: Routledge, 1993), 104.

[7]Bill Phillips and Michael D'Orso, *Body for Life* (New York: HarperCollins, 1999), 1.

[8]Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage, 1979), 136.

[9]Foucault, *Discipline and Punish*, 136–137.

[10]Miron Zuckerman, Raymond Knee, Suzanne C. Kieffer, Laird Rawsthorne, and Laura M. Bruce, "Beliefs in Realistic and Unrealistic Control: Assessment and Implications," *Journal of Personality* 64, no. 2 (June 1996): 436.

[11]See Ellen J. Langer, "The Illusion of Control," in *Judgment under Uncertainty: Heuristics and Bias*, ed. Daniel Kahneman, Paul Slovic, and Amos Tversky (Cambridge: Cambridge University Press, 1982): 231–238. This chapter contains excerpts of a paper Langer published in *The Journal of Personality and Social Psychology* in 1975.

[12]Peter Wagner, *Theorizing Modernity: Inescapability and Attainability in Social Theory* (London: Sage, 2001), 15, 25.

[13]John Dewey, *The Quest for Certainty: A Study of the Relation of Knowledge and*

Action ([New York: Minton, Balch, and Co.], 1929; New York: Capricorn Books, 1960), 244.

[14]Ibid., 7.

[15]Ibid., 9.

[16]Ibid., 9–10.

[17]Ibid., 8.

[18]Ibid., 243–244.

[19]Foucault, *History of Sexuality*, 135.

[20]Ibid., 136.

[21]Ibid.

[22]Ibid., 139.

[23]Ibid.

[24]Ibid., 138.

[25]Ibid., 140, 143.

[26]Ibid., 142.

[27]Ibid., 143.

[28]Elizabeth Shadish, "Freedom and Taoism, *Wuwei:* A Central Taoist Concept." Available: http://online.elcamino.cc.ca.us/phil2/Lectures/FreeEast.htm. Retrieved 3 June 2004.

[29]Ted Kardash, "Taoism–The Wu-Wei Principle, Part 4." Available: http://www.jadedragon.com/archives/june98/tao.html. Retrieved 27 January 2007.

[30]Zuckerman et al. cite numerous studies that view the illusion of control positively, that is, as a necessary component of mental health.

[31]Langer, "The Illusion of Control," 238.

[32]Shelley E. Taylor and Jonathon Brown, "Illusion and Well-Being: A Social Psychological Perspective on Mental Health," *Psychological Bulletin* 103, no. 2 (1988): 193–210.

[33]For example, see the literature review in Zuckerman et al. for research that calls into question both the need to be in control and the value of illusions of control.

[34]Zuckerman et al., "Beliefs in Realistic and Unrealistic Control," 437.

[35]Ibid., 437, referring to the work of C. Wortman, and J. Brehm, Responses to Uncontrollable Outcomes: An Integration of Reactance Theory and the Learned Helplessness Model, in *Advances in Experimental Social Psychology*, ed. L. Berkowitz (New York: Academic Press, 1975): 277–336.

[36]Ibid., 435.

[37]Ibid., 456.

[38]Ibid., 435.

[39]Ibid., 458.

[40]Wilberta L. Donovan, Lewis A. Leavitt, and Reghan O. Walsh, "Maternal Self-Efficacy: Illusory Control and Its Effect on Susceptibility to Learned Helplessness," *Child Development* 61, no. 5 (1990): 1639.

[41]Donovan, Leavitt, and Walsh, "Cognitive Set and Coping Strategy Affect Mothers' Sensitivity to Infant Cries: A Signal Detection Approach," *Child Development* 68, no. 5 (1997): 760.

[42]Donovan, Leavitt, and Walsh, "Maternal Illusory Control Predicts Socialization Strategies and Toddler Compliance," *Developmental Psychology* 36, no. 3 (2000): 402.

[43]Michael Marmot, *The Status Syndrome: How Social Standing Affects Our Health and Longevity* (New York: Times Books Henry Holt, 2004), 2.

[44]Ibid., 123.

[45]Ibid., 207.

[46]Ibid., 249.

[47]Ibid., 166.

[48]Howard Markel, *When Germs Travel: Six Major Epidemics That Have Invaded America and the Fears They Have Unleashed* (New York: Vintage, 2004), 9.

[49]Ibid., 8.

[50]Ibid., 214.

[51]"Risk Management" in the glossary published by the Department of Education, Training, and the Arts in Queensland, Australia. Available: www.trainandemploy.qld.gov.au/tools/glossar/glossary_r.htm. Retrieved 22 September 2005.

[52]See, for example, "Risk Management" in "Some Terms Used in Toxicology and Chemical Safety." Available: www.bio.hw.ac.uk/edintox/glossall.htm. Retrieved 24 January 2006.

[53]"Risk Management." Available: www.imms.com/insglos/Rgloss.htm. Retrieved 22 September 2005.

[54]"Actuary," Diederich Healthcare. Available: http://diederichhealthcare.com/pages/glossary.php?show_def=5. Retrieved 14 September 2007.

[55]H. Felix Kloman, "Risk Management Agonistes," *Risk Analysis* 10, no. 2 (1990): 201.

[56]Ibid.

[57]See "Taming Uncertainty: Risk Management for the Entire Enterprise," Price-Waterhouse Coopers Global E-Briefing Program. Available: http://64.233.167.104/search?q=cache:p8rq32zCtCwJ:www.pwc.com/images/gx/eng/fs/111802taming.pdf+%22Taming+uncertainty+risk+management+for+the+entire+enterprise%22&hl=en&ct=clnk&cd=1&gl=us. Retrieved 12 January 2007.

[58]*Random House Unabridged Dictionary*, 2nd ed., ed. Stuart Berg and Leonore Crary Hauch (New York: Random House, 1993), s.v. "Risk."

[59]Tom Baker, "Risk, Insurance, and the Social Construction of Responsibility," in *Embracing Risk: The Changing Culture of Insurance and Responsibility*, ed. Tom Baker and Jonathan Simon (Chicago: University of Chicago, 2002), 33.

[60]Ibid., 36.

[61]Nikolas Rose, "Biopolitics in the Twenty-first Century: Notes for a Research Agenda," *Distinktion* 3 (2001): 31.

[62]Ibid., 26.

[63]Ibid., 31.

[64]Ibid.

[65]Ibid.

[66]Ibid., 32.

[67]Ibid., 33

[68]Ibid.

[69]Kloman, "Risk Management Agonistes," 203.

[70]Ibid.

[71]Ibid., 202.

[72]Ibid., 203.

[73]See Rose, "Biopolitics in the Twenty-first Century," 26 and 35.

[74]Ibid., 34.

[75]Ibid.

[76]Ibid.

[77]David Shenk, "Imitation of Life," *Gourmet*, April 2005, 70.

[78]Jill Sudduth, "Where the Wild Wind Blows: Genetically Altered Seed and Neighboring Farmers," *Duke Law and Technology Review* 0015 (May 3, 2001). Available: http://www.law.duke.edu/journals/dltr/articles/2001dltr0015.html. 19 September 2007.

[79]Shenk, "Imitation of Life," 147.

[80]Rose, "Biopolitics in the Twenty-first Century," 42.

[81]Ibid.

[82]Alan Burdick, *Out of Eden: An Odyssey of Ecological Invasion* (New York: Farrar, Straus and Giroux, 2005).

[83]Valerie Monson, "Fighting Invasive Species With Biocontrol," *The Maui News*, 29 May 2005. Available: http://www.mauinews.com/story.aspx?id=9257. Retrieved 15 December 2005.

[84]Ibid.

[85]Burdick, *Out of Eden*, 167.

[86]Ibid., 158, attributing the question to Frank Howarth, an entomologist at the Bishop Museum in Honolulu.

[87]Seyom Brown, *The Illusion of Control: Force and Foreign Policy in the 21st Century* (Washington, D.C.: Brookings Institution Press, 2003).

[88]Ibid., 2.

[89]Ibid., 1.

[90]Ibid., 3.

[91]Ibid., 100.

[92]Ibid., 141.

[93]Ibid., 5.

[94]Ibid., 4–5.

[95]Ibid., 49.

[96]George Lakoff, *Don't Think of an Elephant: Know Your Values and Frame the Debate* (White River Junction: Chelsea Green Publishing, 2004), 54–55.

[97]Ibid., 55.

[98]Ibid., 58.

[99]Judith Warner, *Perfect Madness: Motherhood in the Age of Anxiety* (New York: Riverhead Books, 2005), 48.

[100]Boyd is quoted in Kathleen Megan, "Breast Cancer Tied to Many Factors," *The Capital Times*, 12 October 2006, sec. F, 2.