

## ENVIRONMENTAL HAZARD AND INSTITUTIONAL BETRAYAL

Lay-Public Perceptions of Risk in the  
San Luis Obispo County Oil Spill

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*In this in-depth case analysis of the massive Guadalupe Dunes oil field spill in California's San Luis Obispo County, it is argued that understanding community members' interpretations of risk requires attention to the broader social and historical contexts within which interpretation occurs. This conceptualization differs from conventional approaches to studying risk that tend to treat the phenomena more narrowly, as discrete "variables" that can be measured objectively by experts or that can be assessed as reactions of lay people to single, isolated events. The main finding from this study is that community members' interpretations of the risks posed by the Guadalupe Dunes spill (the largest in U.S. history) were affected profoundly by the social and environmental history of the local area. In this case, perceptions of present and future risk associated with the massive contamination of Guadalupe Dunes grew more from impressions of the way corporate and governmental institutions in the area mishandled this and previous oil-related hazards than from fear of health risks associated with the discrete Guadalupe Dunes event. Community members reacted to the threat from the immediate event but also experienced a more encompassing sense of risk associated with a perceived breach of trust on the part of corporate and governmental institutions. From their impression of institutional neglect, misconduct, and cover-up, they developed a sense of institutional failure and feelings of betrayal and anger. As this case suggests, when a complete breakdown in trust of this kind occurs, community members' perceptions of and reactions to risk can be seen as "rational" but cannot be understood as merely calculative responses to the physical hazards associated only with the immediate, discrete event. By reporting how community members and other members of the lay public experienced this more encompassing sense of risk, this study illustrates the critical importance of context in risk research. Implications for developing theories of risk perception are discussed.*

**T**his is a study of a community's perception of and response to the largest oil spill in U.S. history: the Guadalupe Dunes oil field spill in San Luis Obispo County, California.<sup>1</sup> In contrast to the iconographic Exxon Valdez crude oil spill, with its complementary array of oiled birds and dying sea life, the Guadalupe

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spill was caused by chronic, small leaks that accumulated on land and underground over four decades. A system of corroded oil-bearing pipes owned by Unocal Corporation emptied *diluent*, a clear petroleum thinner, into their oil field and the surrounding sand dunes. The diluent settled on top of the groundwater, growing to as much as 20 million gallons. During dry seasons, the pollutant remains largely out of sight. It becomes obvious with fluctuations in the water table during wet seasons.

Although experts debate the acute risks the spillage poses, few in the county have said that their health has been seriously compromised. Despite this, the spill has become locally infamous, galvanizing protest and cynicism. In this article, I explore lay-public reactions that appear “irrational” when seen through the lens of conventional risk evaluation models. By linking local response to relevant social and historical events in the region, the distrust the spill has engendered appears not only reasonable but eminently rational. For local environmental activists, beach walkers, and others interviewed for this research, the sense of risk emerged in part from perceptions of the threat posed by the immediate hazard, but more important, from the sense of institutional failure on the part of both industry and government agencies. Put another way, the context of the spill, including both the history of known environmental hazards and the apparent misconduct by relevant institutional actors, led San Luis Obispanos to be seriously concerned about their longer term safety.

I use the Guadalupe spill as a case<sup>2</sup> to investigate how community impressions of risk, what some refer to as “miscalculations” (c.f. Cohen, 1985; Douglas & Wildavsky, 1982; Starr, 1969; Tversky & Kahneman, 1974; Wildavsky, 1988), can arise out of perceptions of institutional trustworthiness (or lack thereof). In this article, “lay-public” or community refers to those who stand outside “expert systems” of analysis and decision making (see Wynne, 1996, p. 46). I define *trust* as faith or confidence in another’s performance. The specific focus of this article is on lay-public trust in (and distrust of) institutions. *Risk* is the perceived potential for injury or loss.

Risk analysis has primarily been concerned with the identification, measurement, and evaluation of discrete risks. Only more recently has it been concerned with perceptions of them (Heimer, 1988; Mitchell, 1990; Tierney, 1999). In the first instance, risk research has typically focused on the regularity and severity of hazardous events as assessed by experts. They calculate probabilities and related estimates of cost and liability (Crouch & Wilson, 1982; Heimer, 1985; Lowrance, 1976; Petak & Atkisson, 1982). In the mid-1970s and into the 1980s, interest turned to understanding what influenced lay-public misperceptions of risk. This research trajectory has been dominated by a psychometric paradigm that emphasizes individual cognition, using presumed “objective” measures (i.e., probabilities) of risk as the benchmark for comparison (see Clarke & Freudenburg, 1993; Mitchell, 1990; Wynne, 1992; c.f. Covello, 1983; Fischhoff, 1990; Slovic, Fischhoff, & Lichtenwtein, 1979; Tversky & Kahneman, 1973, 1981).

This study extends the existing literature on communities and hazardous contexts (see P. Brown, 1992; P. Brown & Mikkelsen, 1990; Freudenburg & Gramling, 1994; Harr, 1995; Kroll-Smith & Couch, 1990; Levine, 1982; Mazur, 1998; Vyner, 1988; Walsh, 1981, 1988) by further developing the theoretical links between environmental hazards, “collective traumas,” the erosion of institutional credibility, and lay-public perceptions of risk (Edelstein, 1988, 1993; Erikson, 1976, 1994; Freudenburg, 1993; Wynne, 1987, 1992, 1996). Erikson (1994) and Edelstein (1993), in studying community response to hazards, argue that trauma often

emerges from intense feelings of victimization, vulnerability, and stigma that erode confidence in societal institutions. In a similar vein, Freudenburg (1993) and Wynne (1992, 1996) have found that institutional legitimacy and risk perceptions pivot on the way such socially consequential actors (i.e., institutions and “experts systems”) carry “out their duties with [the] full degree of competence and responsibility that their fellow citizens” expect (Freudenburg, 1993, p. 927). Not doing so generates public skepticism and undermines institutional authority (Wynne, 1992, pp. 281-282). My study is most directly related to these theoretical assertions that are extended through empirical analysis. It is shown that lay-public risk perceptions are intimately tied to community impressions of “vulnerability” that emerge from distrust of institutional actors and actions.

This line of inquiry is especially relevant given the role that institutions increasingly play in modern life. Large and often socially distant organizations arbitrate what are “acceptable risks” while unabashedly implementing plans, strategies, and agendas (as both the progenitors of and protectors against risks; see Clarke, 1988, 1989, 1993). According to prominent organizational theorist Charles Perrow (1997),

Bureaucratic organizations are largely responsible for the direction of our social, economic, and cultural history; they were increasingly important in the nineteenth century, and primarily responsible for the twentieth century. . . . The story of our time is big organizations centralizing wealth and power. (p. 67; also see Perrow, 1986, 1991)

In short, we are dependent on de facto “trustee” institutions in the form of government agencies and corporations to assure livelihoods, safety, and security.<sup>3</sup> They are, implicitly at least, “trusted” to follow through reliably on these obligations. A breach of this “social charter” leads to uncertainty, suspicion, mistrust, and, as expressed by San Luis Obispanos, a good deal of anger (Fantasia, 1988; Flacks, 1988; Reinerman, 1987; see also Granovetter, 1985; Shapiro, 1987, for reference to trust in exchange relationships). Ultimately, such violations form the grounds for reassessing the future and hence for lay-public recalculations of risk (Freudenburg, 1992, 1993).

As developed by labor movement theorists such as Reinerman (1987), the social charter is “nowhere written” but rather represents “tacit rights and expectations” that have been “central to the legitimacy of the U.S. political economic system throughout the post [WW II] era” (p. 18). This notion of a violated social charter also resonates with research on human-induced crisis (P. Brown, 1992; P. Brown & Mikkelsen, 1990; Edelstein, 1988; Erikson, 1976, 1994; Freudenburg, 1993; Kroll-Smith & Couch, 1990; Wynne, 1992). For example, in exploring community response to human-induced, hazardous contexts, Erikson (1994) found that such “collective traumas” undermine feelings of security and erode trust in institutional forms:

The mortar bonding human communities together is made up at least in part of trust and respect and decency. . . . It is profoundly disturbing to people when these expectations are not met. . . . They think their eyes are being opened to a larger and profoundly unsettling truth: that human institutions cannot be relied on. (p. 239)

Although the Guadalupe spill provides a less direct affront to the collective health of San Luis Obispanos than those outlined in Erikson’s (1976, 1994) research, their

response mirrors a similar sense of betrayal. The Guadalupe spill has come to symbolize the unreliability of institutions—the corporate actors involved in the oil industry and the governmental actors that failed to prevent and rectify the situation in a timely manner.

I begin with a review of some theoretical footings on which my research on community response to the Guadalupe spill stands. Next, to address the complexity inherent to the “risk context” in which the Guadalupe spill as an issue was nested, I introduce important social and historical antecedents to its discovery. These include San Luis Obispo’s history with oil production, regional experience with environmental “troubles,” and the media’s role in helping to discursively connect pollution problems and institutional recreancy across time and space. Following this, I present an empirical accounting of local resident and environmental activist articulations of what the spill signifies for them as both a physical and symbolic event. And finally, as an outgrowth of these empirical observations, I provide a theoretical synthesis. Based on my empirical findings, I address two issues of theoretical importance. The first is the tendency of conventional risk models to oversimplify risk interpretation processes. The second is to expose how such approaches to understanding risk can appear to those that must live with them—as thinly veiled mock-ups that hide the intentions of some powerful institutional actors.

### THEORIZING THE RISK-TRUST RELATIONSHIP

A growing number of social theorists have identified the link between risk and (dis)trust of institutions as defining current and “modern” social relations. Some have gone so far as to coin new terms to describe the modern condition as characterized by fears of *official recreancy*—“a failure to follow through on a duty . . . by institutions that hold positions of trust” (see Freudenburg, 1988, 1992, 1993, p. 916). Still others have theorized that this condition is so distinct that it represents an epochal break with the (past) modern period and deserves a new label, such as the *risk society* (Beck, 1992, 1996; Beck, Giddens, & Lash, 1994) or *high modernity* (Giddens, 1990, 1991, 1994). For example, Beck (1992, 1996; Beck et al., 1994) asserted that an erosion of trust in expert systems resides in the “self-refuting” nature of, on one hand, institutional claims to safely manage modern technoscientific risks and, on the other hand, the inability of such expert systems to live up to that promise. Beck alleged, implicitly at least, that the discrepancy between claims and actions manifests itself in a profound sense of betrayal on the part of the general lay public.

In his early writing on the subject, Giddens (1990, 1991) claimed that the simultaneous trust in and suspicion of expert systems is the two-headed Janus that defines the contours of contemporary society. This is distinctive from “simple modernity,” in which unquestioned faith in expert systems and the modern project (i.e., progress) was taken for granted. In his more recent accounts, Giddens (1994) moves closer to Beck’s political framing of risk, seeing risk interpretations as inextricably bound to the trust-distrust dyad with regard to expert systems in “high modernity.” In contemporary society, according to Giddens, a highly differentiated lay public (based on traditional categories of race, class, and gender crosscut by intersecting identity and lifestyle concerns) purposively invests their trust in “specific expert systems” by choice and with foreknowledge. This occurs through the weighing of recognized risks to advance specific interests and/or to avoid specific risks.

In a thorough account of both Beck and Giddens, Wynne (1996) criticizes their theoretical assumptions and oversimplifications of risk and (dis)trust in modernity.

Wynne claims that both their propositions concerning the move from simple modernity to high modernity (or risk society) based in a contemporary “reflexive turn” are false. Lay-public ambivalence toward expert systems and institutions is not a new phenomenon. In an analysis of two historical cases, Wynne found that it is the official record that does not “remember”; laypersons’ *dependence* on expert systems and institutions in the past should not be confused with trust in them (p. 52). Lay-public skepticism of expert systems, according to Wynne, is not unique to high modernity. He disagrees with both Beck’s thesis that modern distrust (and hence a pervasive sense of risk) is based in a discrepancy between institutional claims and miscalculation and Giddens’s emphasis on the reflexive turn in modernity in which lay publics invest (trust) in some expert systems and pull back support (embodied as distrust of them) for others based on bold self-interest. Rather, for Wynne (1992), distrust is seated in collective resistance to so-called objective accounts of risk that are experienced by the lay public as intellectual abstractions (p. 282). They recognize these abstractions for their practical and opportunistic implications. Thus, lay-public distrust derives from the imposition of these objective accounts of risk, forwarded by the “experts” and used by institutional bodies in the name of this public.

Giddens (1994), Beck (1992), Freudenburg (1993), and a handful of others have made important theoretical contributions, but empirical research on this topic is rare (c.f. Douglas & Wildavsky, 1982). More investigations like Wynne’s (1987, 1992, 1996) are needed that address how risk-trust dynamics in situ affect grassroots impressions of the hazards. Indeed, several scholars have called for such studies (see P. Brown & Mikkelsen, 1990; Erikson, 1994; Freudenburg, 1993; Lash, 1994; Tierney, 1999; Wynne, 1992, 1996). This empirical lacuna is especially surprising given the growing incidences of grassroots movement(s) and their increasing significance in political arenas as they attempt to control the distribution of risks in contemporary society (M. Brown, 1980; Bullard, 1990; Calhoun & Hiller, 1988; Gamson & Modigliani, 1989; Jamison, 1996; Jamison, Eyerman, & Cramer, 1990; Szasz, 1994). The neglect is all the more notable for events that lack the cogency and drama that accompanies the higher profile, more “newsworthy” technological hazards—reactor meltdowns, tanker spills, and contentious industrial-siting controversies (see Erikson, 1994; Hewitt, 1983; Mitchell, 1990; c.f. Clarke, 1989, 1999; Lee & Ermann, 1999; Morone & Woodhouse, 1986; Perrow, 1984; Sagan, 1993; Vaughan, 1996, 1999; Weick, 1993).

Whereas investigations of how hazards are received by those who live with them continue to be underrepresented, research that attempts to identify, measure, characterize, and evaluate discrete risks as the primary unit of analysis has proliferated (Tierney, 1999; Wynne, 1996; see also Cullen, 1997; Erikson, 1990; Hewitt, 1983; Mitchell, 1990; Walker, 1997). In one of the few conjunctive areas in which physical and social scientists have collaborated, efforts to ascertain risk have typically focused on formally determining the risks posed by a range of emerging technologies (Slovic et al., 1979; Slovic & Fischhoff, 1983). Such risk research originated in a number of concerns, including the recognition that growth included both positive and negative social and ecological impacts (Schnaiberg, 1980; Schnaiberg & Gould, 1994), the need for standards of safety in the regulation of new technologies (Shrader-Frechette, 1991), increased public concern over these new technologies and a deteriorating environment (Szasz, 1994), and the insurance industry’s need for accurate data on which to base premiums (Heimer, 1985, 1988). The entrance of the federal government into this arena as the “environmental enforcer” generated a rush to understand the implications of “pricey” regulatory interventions (Collela,

1981; Tierney, 1999). Primarily developed by industry-backed “production-science,” formal-economic and engineering performance-versus-cost models tried to capture the trade-offs associated with legislative agendas and new technological advances (Schnaiberg, 1980).<sup>4</sup> What initially emerged from these efforts, in the 1970s and 1980s, were probabilistic risk-assessment models that, under the aegis of feasibility and societal benefit, sought to formally rationalize environmental, technological, and developmental risks (Mitchell, 1990).

A handful of significant models emerged from this research trajectory that attempt to ascertain both potential risks themselves as well as risk perceptions. The most notable include those that emphasize psychological heuristics (see Fischhoff, 1990; Slovic et al., 1979; Tversky & Kahneman, 1974), probabilistic arguments (Cohen, 1985; Starr, 1969), and economic utility. According to the first, the lay public miscalculates modern hazards because mental processes are inadequate to the task of calculating what are miniscule risks (for instance, those posed by nuclear technologies). As such, the beholders of such risks tend to employ “computational short cuts” that overemphasize events that are particularly memorable (e.g., dramatic events), in effect ignoring events that are less vivid, even if they are more common (Tversky & Kahneman, 1974, 1981). The second model, the probabilistic argument approach, suggests that the lay public irrationally conceives the risks involved with well-engineered and “safe” technologies and unthreatening chemicals. They bolster their claims by pointing out the public’s use of inherently unsafe technologies without fear (Cohen, 1985; Starr, 1969). Familiar examples include the automobile, as well as the public’s unwillingness to live next to waste incinerators and nuclear facilities, although their probability of being harmed—according to (institutional) experts—is infinitesimally small. Finally, the third model, the utility approach, emphasizes the economically “rational, if understandably selfish, response to facilities and technologies that may constitute local undesirable land uses (LULU’s) . . . whatever their objective risks” (Freudenburg, 1993, p. 911).<sup>5</sup>

Obviously, the tone that these risk assessors take would be less than reassuring to lay people. This line of inquiry had concluded, through presumably objective means, that the risks posed by nuclear technologies, waste disposal techniques (for instance, incinerators), potentially cancer-causing chemicals, and so forth were insignificant. But, public resistance to these technologies has been tremendous (Eckstein, 1997; Edelman, 1988; Epstein, 1991). Nevertheless, the public haranguing that many of these projects and technologies received did not (initially at least) lead researchers to reformulate their positions or their assessment methods.<sup>6</sup> Rather, their faith in the validity of their evaluations became the baseline from which they asked why the public was so prone to “irrationally” misinterpret the “benefits and low risks” associated with “self-evident” societal gains (see Cohen, 1985; Lowrance, 1976; Starr, 1969; Wildavsky, 1979). In other words, all these risk-assessment methods take a blame-the-victim tone. That is, research on risk has tended, according to Freudenburg (1993), “to ask what about people leads them to reject certain technological developments, not what about industry leads it to develop technologies people reject” (p. 399).

Ironically, research that focuses on experts and complex-technical systems has found that even technical professionals—the “rational” risk assessors—fail to predict or diagnose the crisis potential of the systems they operate (Perrow, 1984; Shrader-Frechette, 1991). For example, Slovic et al. (1979), Mazur (1991), and others<sup>7</sup> have related that those who work in the nuclear industry are as prone to “improperly” underestimate the risks nuclear energy presents as is the wider population to overestimate its danger. In this and similar cases, the experts tend to con-

concentrate on the details, whereas the public focuses on the “bigger picture” (Clarke & Freudenburg, 1993, p. 71).

It is important to emphasize the power attributed to the foregoing models as they wield great advantage when important decisions that involve the potential to cause injury or loss are made in “official contexts” (i.e., the courts and legislative bodies; see Calhoun & Hiller, 1988; Harr, 1995; Mitchell, 1990). Yet, all of these—the economic modeling of environmental trade-offs, the contingency-based probability assessments, and the psychological work on risk perceptions—decontextualize and oversimplify the scenarios, situations, and experiences that inform lay-public interpretations. There is a tremendous gap between these theoretical explanations and the reality of “risks” as they are experienced by those “on the ground.”

In line with recent research on community response to hazardous circumstances (P. Brown, 1992; P. Brown & Mikkelsen, 1990; Edelman, 1988, 1993; Erikson, 1976, 1994; Freudenburg, 1993; Levine, 1982; Walsh, 1981, 1988; Wynne, 1987, 1992, 1996) and questioning the Beck-Giddens thesis of a distinct split between simple modernity and contemporary risk society, in this article I address the context that informed local response to the Guadalupe spill. Briefly, local people have not responded to this spill-event as if it were a discrete risk but rather as one linked to other events and embedded in a sociohistorical context. Their response includes skepticism of corporate as well as governmental actors’ intentions. I argue that it is out of local impressions of environmental history but especially of institutional trustworthiness (and lack thereof) that the sense of risk surrounding the spill emerged. Instead of operationalizing risk as if it were a solitary quality inherent to a single toxin, technology, or environmental hazard, this article stresses the importance of historical legacy and interpretive context to perceptions of risk as they relate to trust in authority and its claims. Following a brief description of both the physical facts of the case and my methodology, I turn my attention to the story of the spill from the perspective of the local community as conditioned by its sociohistorical context.

### THE CASE UNDER STUDY

San Luis Obispo County, California, itself is geographically split into what amounts to two halves. These regions are not only geographically distinguishable but climatically, economically, and culturally distinct. The Santa Lucia Mountains provide the physical barrier that differentiates the South County from the North. The mountains run from the northwest to the southeast. On the coastal side—the region in which this research was conducted—is a narrow strip of land that boasts a temperate climate and significantly more rainfall than the drier, hotter interior on the other side of the divide. Moving south, this coastal area widens near the Santa Maria River and corresponding flood plain. The majority of the oil operations in San Luis Obispo County are found within this coastal zone, particularly the southern portion where the Guadalupe spill has occurred.

Underneath a windswept and increasingly rare piece of open space in the southwest corner of San Luis Obispo County sits the Guadalupe spill. Bordered on the west by the Pacific Ocean and the south by the Santa Maria River, the area is ecologically diverse and an important refuge for 12 federally recognized endangered species and some 40 other locally and regionally identified threatened flora and fauna.<sup>8</sup> The area is also used extensively for recreation (surfing, hiking, birding, and so forth) and was until recently used for commercial surf fishing, but this is no longer the case as the fish are said to have taken on the odor of petroleum, making them

unsuitable for sale. Subsistence and recreational fishing still take place at the beach bordering the dunes.

Over 38 years, Unocal Corporation spilled 20 million gallons of a petroleum thinner called *diluent* used to thin the viscous crude oil found in the southern and central coasts of California. Diluent is similar to kerosene or diesel fuel in appearance and smell. Although a less blatant pollutant than crude, diluent does contain carcinogenic chemical solvents such as benzene, toluene, xylene, and ethylbenzene, which make it potentially more toxic (Mckee & Wolf, 1963). However, as with many features of this spill, controversy remains over its level of toxicity (and the associated risks) and how long it continues to be toxic (and a risk) when released into the environment.

### METHOD

I began participating in research on the central California petroleum industry in 1990 (see Beamish, Molotch, Shapiro, & Bergstrom, 1998; Molotch et al., 1998; Molotch & Freudenburg, 1996). Specifically, I explored the creation of and response to the Guadalupe spill over a 2½-year period, commencing in 1996. I conducted intensive interviews (and impromptu conversations while in the field) and engaged in ethnographic participation in local events related to the spill and the local oil industry. I also collected extensive archival data. Corroborating these data sources was an integral part of identifying patterns and verifying conclusions.

Over approximately a 1-year period, I conducted 39 1- to 2-hour semistructured field interviews with selected respondents drawn from four primary groups. Sixteen of the participants were associated with the community but had no formal role or decision-making capacity with regard to the spill. Nine members of this group were environmental activists. Seven were locals who, although not necessarily directly linked to activist groups, had specific reasons for interest in the spill—beachgoers, media employees, local historians, and others that by virtue of physical proximity, recreational interests, or special roles as chroniclers of local events gave insight into how the spill was experienced. I conducted 18 interviews with experts, including those directly involved in cleanup, litigation, and policy construction, as well as other relevant elected public office holders. Finally, I personally contacted and interviewed 4 individuals who had worked at the Guadalupe oil field. In addition to these 39 interviews, I had access, through a colleague also studying the region's oil industry, to 3 other interview transcripts of workers from the region who commented on Unocal, regional oil production, and related matters.

Interviews were first held with people whose names surfaced through the media or in official documents and who were representative of the interest groups outlined above. After interviewing a respondent, I then asked for referrals to other possible respondents or parties of interest. In this manner, the initial purposively selected sample snowballed. Because of the diversity of interviewees and the complex nature of the issues raised, I did not feel it appropriate to create a standardized questionnaire. Instead, interviews were guided by a list of points that were tailored to the specific role of the informant vis-à-vis the spill event. Thirty-five of these interviews were tape-recorded, transcribed, and systematically analyzed for their content.<sup>9</sup> Four informants were uncomfortable with my taping them, so these interviews were restricted to interview notes. Quotations are verbatim from the transcripts or interview notes unless otherwise cited.

In addition to the 39 interviews, I also had extensive informal contact with those involved with the spill through site tours, public forums, and e-mail exchanges. In



the case of site tours, local residents were invited on three occasions to tour the spill site with government officials and Unocal managers. I attended these half-day tours and spoke with a broad range of people in the process. Lawyers for all sides of the issue attended and were informally approached. (I had few opportunities to talk with the legal staff but did conduct an in-depth interview with a trial lawyer representing local surfers suing Unocal.) Journalists, dunes advocates, bird enthusiasts, antioil advocates, unaffiliated community members, county officials, Unocal chaperons, and consultant-specialists representing different interests were also present (some 40-50 people in total). Having established contact, a handful of these persons continued to keep me abreast of their “interests” via e-mail. I also visited the beach and dunes intermittently over the 2½ years and spoke informally to persons there who frequented the area as surfers, fishermen, beach walkers, and for general recreation.

Moreover, because issues concerning oil are locally lumped together (something I take up in detail in the following analysis), attending public events or collecting archival materials that concerned the local oil industry often led to impromptu discussions about the Guadalupe spill. This tendency was amplified through my identification with issues of oil (through this and another research endeavor; see Beamish, 2000a, 2000b; Beamish et al., 1998). On many occasions, spontaneous conversations also occurred in hallways and waiting rooms of offices as well as the homes of those I intended to interview with individuals I had not originally contacted or planned to meet. Although in these instances, comments were not tape-recorded (as they were in the more formal interactions—see interviews above), these conversations should not be seen as any less important than the others. New questions, better understandings, and clarity resulted from asking (and in some cases answering) questions of different persons with different experiences, backgrounds, and interests. Moreover, my participant observation research included extensive note taking and postparticipation write-up in which I strove to capture the essences of these impromptu conversations.

I also amassed and analyzed hundreds of pages of archival materials such as inter- and intraagency communiqués, executive spill/remediation summaries, court documents, meeting minutes, scientific documents that characterize the extent and potential effects of the spill, official correspondences, promotional materials—both grassroots and corporate—and corporate memos addressed to various official parties.

Finally, I used regional media outlets and a handful of national stories that covered the spill to corroborate the claims of my respondents, reconstruct how the event publicly unfolded, and glean comments made by corporate officials, local managers, fieldworkers and others interviewed by the press. With the media, I systematically examined the print news from San Luis Obispo and Santa Barbara cities beginning in 1989 and continuing through 1999 (see Note 17 for an example). I also examined national media using the University of California MELVYL News search engine. MELVYL allows retrieval, by key word, of headlines in five major U.S. newspapers: the *New York Times*, the *Los Angeles Times*, the *Washington Post*, the *Wall Street Journal*, and the *Christian Science Monitor*. This allowed for the identification of the range of coverage in national media.

In sum, I have drawn the conclusions presented in the following through the systematic analysis and identification of iterated patterns across this wide array of data. It is worth noting that I rely heavily on the articulations of county residents and on media representations that framed the event because they so clearly evince local

impressions, motivations, and rationales to which summary descriptions, on my part, could do little justice. I have numbered each community informant so that interviewee comments are distinguishable from one another. I should also add that these quotes represent especially clear articulations of patterns I observed across interviews and through participation in the field.

### A HISTORY WITH OIL WITHOUT THE PAYOFF

The history of oil development in San Luis Obispo County, its proliferation in bordering counties, and the influences that changing demographics brought with them are all important contextualizing events that provide the backdrop for the county's response to the Guadalupe spill. As new interests have evolved in the county,<sup>10</sup> the local oil industry, in particular, has increasingly come under attack by residents as contradictory to their goals and accompanying set of aesthetics: outdoor recreation, open spaces, and untainted ruralness. This switch in priorities, coupled with the oil industry's penchant for messy production and transport, has translated for San Luis Obispo into a fundamental distrust of oil-related development (Nevarez, Molotch, & Freudenburg, 1996). Over time, this disposition has gained momentum as incidents such as the Guadalupe spill have surfaced and become public events.

The first prospects for oil in San Luis Obispo County came only 5 years after oil's earliest discovery at Titusville, Pennsylvania, in 1859. Oil exploration was sporadic throughout the 19th century, with local history recounting only moderate success in developing it profitably. Because San Luis Obispo never produced the kind of oil (both in quantity or quality) as did early Pennsylvania, Louisiana, and even nearby Kern and Ventura Counties, California (Freudenburg & Gramling, 1994; Gramling, 1996; Paulsen, Molotch, & Freudenburg, 1996), it never developed the same kind of positive cultural and economic connections to the resource found in these other regions.<sup>11</sup> This social history of oil is nicely captured in a local San Luis Obispo daily article titled "Abandoned Wells, Forgotten Dreams":

Wildcatters have punched wells from San Simeon to Nipomo, from Paso Robles to Shell Beach. Most have produced more sweat than oil. "We're not like Kern County (California) with oil wells all over the place," said county planner Steve Eabry. . . . But that hasn't stopped people from trying. Maps on file with the state Division of Oil and Gas show the county is riddled with abandoned dreams and would-be oil tycoons. (Stover, 1989a, p. A1)

In the 1960s and 1970s, San Luis Obispo experienced rapid population growth and a shift away from its prewar agricultural base. As San Luis Obispo became predominantly a population of professionals, service industry workers, and government employees (Nevarez et al., 1996), a concomitant change in cultural orientation toward the natural environment also took place around its uses, its aesthetic value, and the community's identification with it. In the county's coastal areas, this shift was the most pronounced. Both new immigrants and a growing tourist industry have identified the untrammled character of the San Luis Obispo countryside as a primary "selling point" and reason they came (Beamish et al., 1998; Nevarez et al., 1996). Based on petroleum's lack of economic pay-off and on demographic changes, county residents have increasingly come to see oil as a threat to their quality of life—oil as pollution, not as progress or employment. Defense of their "envi-

ronmental quality of life” has come to play a decisive role in county politics and in the stance local residents have taken on the Guadalupe spill and related events.

***The Environmental Era:  
An Activist County “Under Siege”***

Many who have written about the U.S. environmental movement point to the 1969 Santa Barbara oil spill as one of a handful of critical episodes that sparked its genesis (Enloe, 1975; Gottlieb, 1993; Kallman & Wheeler, 1984; Molotch & Lester, 1975; Williams, 1997). San Luis Obispo’s proximity to this massive and dramatic oil spill—just 100 miles north—only hardened an attitude that was quickly becoming a viable force in San Luis Obispo County affairs.<sup>12</sup> Santa Barbara’s experience reminded community members how catastrophic oil production could be if a community was not vigilant in checking petroleum development.

Following on the heels of the Santa Barbara oil spill came an additional environmental wake-up call: the proposal by Pacific Gas & Electric, with backing from the federal government, to build the Diablo Canyon nuclear facility in San Luis Obispo County. The idea of a nuclear power plant operating in San Luis Obispo brought activists and nonactivists together to form the Abalone Alliance to combat its construction (Epstein, 1991). Political conservatives, liberals, and the “radical fringe” rallied to keep the facility out of San Luis Obispo County in an alliance that emerged without the usual political or ideological divisions. In spite of community resistance, the Diablo Canyon nuclear power plant went online in 1981. The lessons the county learned from this experience have been long lasting in their effects. In particular, they have manifested a distrust of outside government intentions and an abiding suspicion of industrial endeavor. In reference to the effect this history has had on county sentiments, Nevarez et al. (1996) comments, “the protests galvanized a new generation of environmentalists, quality of life-oriented activists, and like-minded officials who remain active in San Luis Obispo government and quite powerful in county politics as well” (p. 66).

Although San Luis Obispans struggled with the federal government and Pacific Gas & Electric to stop Diablo Canyon, on another front the federal Department of the Interior under James Watt<sup>13</sup> was proposing petroleum deposit lease sales off the south coast of the county. The already-organized activists made an easy switch from one issue of “regional sovereignty” to another, from antinuclear to antioil protests. According to county activists, it was the same battle. In their minds, they were under siege from a development-oriented federal government that did not care how San Luis Obispans felt about their environment:

When measure “A” [a ballot measure limiting oil development] came through for our county . . . the county stood up and said, “Screw you, oil companies. Stay out of here. We have enough problems with Diablo, let alone [you].” . . . The county experience with Diablo was such that it brought together a vast spectrum from the county, from all walks of life, from all political persuasions, which saw how a corporation will come in and lie and say anything to get what they want. Once they are in, they will continue to lie, breaking all the verbal agreements they have made with the county as things go down the line. (Interview 1, male, 40s, San Luis Obispo County environmental activist, 1996).

When grouped—the 1969 Santa Barbara oil spill, the installation of the Diablo Canyon Nuclear Facility, and the federal Outer Continental Shelf (OCS) lease sales

of the 1980s—these events served to arouse community distrust of federal, and at times state, intentions while marking the oil industry as messy and potentially dangerous. This hardening of local opposition to “dirty” operations, nuclear power and oil being the primary targets, was evident throughout my interviews with local community members and in the local press and was corroborated through an antioil ballot initiative called Measure A, which was passed by a majority vote in 1986 (Beamish et al., 1998; McGinnis, 1991; Nevarez et al., 1996).<sup>14</sup> However, the events that helped to frame the Guadalupe Dunes spill do not end here. There also has been a set of more recent oil mishaps contemporaneous with the Guadalupe spill’s discovery that have received substantial media attention, further compromising trust and spurring local anger. These events have turned nascent distrust into outright contempt.

### *The Media’s Role*

An analysis of local impressions of the spill would be remiss if it did not attend to the media’s role in issue formation and solidification. An important part of such a public issue is the media’s role in dispensing information about it. Although the media is only a part of any discourse surrounding an event, it is always an important source of raw data on which future media and private conversations are constructed (Fishman, 1978; Gans, 1979; Stallings, 1990). Furthermore, lay-public impressions of risk, according to Robert Stallings (1990), are intimately tied to media constructions, even if they are not determined by them: “Risk is not the outcome of media and public discourse, but exists in and through processes of discourse” (p. 82).

For their part, regional media outlets, at the very least, have played an important role in keeping oil as an issue on the minds of San Luis Obispanians. Between 1989 and 1996, for instance, some 198 stories that had oil as their focus appeared in the first five pages of the *San Luis Obispo Telegram-Tribune*, the region’s major daily. Theoretically at least, media can generally be counted on to support business and development, especially local media outlets (Logan & Molotch, 1987; Molotch 1970). Yet, in San Luis Obispo, this is not the case. The *San Luis Obispo Telegram-Tribune* in conjunction with the weekly events and entertainment guide, the *New Times*, are outspokenly antidevelopment and antioil. The influence the *San Luis Obispo Telegram-Tribune* exerts rests in its ability to set media agendas for other regional press outlets (both television and newspaper) that often follow up on news stories initiated by it (Nevarez et al., 1996).

As described above, the seeds of lay-public outrage over the Guadalupe spill were already sown when it made its “public debut” in 1994 vis-à-vis local newspaper and television press coverage. Although the Guadalupe spill, up until this time, had received only minimal coverage, other very conspicuous and concurrent spills received a fair share of the headlines between 1989 and 1993. It is through the extensive coverage of those other spills—a “news-wave” (Fishman, 1978) that covered countywide oil mishaps—that Guadalupe was lent the kind of “social visibility” it otherwise lacked. Guadalupe and these other spill crises were, in effect, discursively linked, laying the groundwork for the regional outrage that would follow.

Although not a local drama, the 1989 Exxon Valdez tanker accident, much like the Santa Barbara oil spill, alerted San Luis Obispanians to the potential for a major spill in their coastal waters. It appeared in local headlines and was connected to the region through front-page stories such as this headline, “Oil Spill: What If It Happened Here?” (Stover, 1989b). The story goes on to raise the specter of a Valdez-type spill occurring in the county, quoting local oil experts for their apprais-

als of “how bad it could be, if it happened here.” Closer to home, the 1990 American Trader tanker spill at Huntington Beach would blacken the shoreline 200 miles south and also remind San Luis Obispanos to be guarded when it came to matters of petroleum development.

As it turns out, these early headlines and lessons learned from regions near and far were prescient. Soon thereafter, Unocal did spill; more precisely, their mishaps became public events. The first of these spill events occurred in 1992 at Pirates Cove San Luis Obispo, which abuts Unocal’s Avila Beach storage and transport facility. A pipe burst, spilling 6,000 gallons of highly visible crude oil into the ocean and onto the adjacent beach. Fulfilling all the criteria that make for an industrial disaster, the oil spill fouled a favorite local beach, taking a heavy toll on a rich wild-life area: It killed 20,000 fingerling salmon and ruined a new hatchery program, with 62 dead seabirds, a dozen affected sea otters and sea lions, as well as the lengthy closure of the beach (Greene, 1992a).

Following closely on the heels of the Pirates Cove spill, the town of Avila Beach itself, a small resort community whose livelihood is based on tourism, discovered troubles of its own. After years of denial, Unocal admitted to a “small” problem. They dug under the city and “discovered” a 400,000-gallon petroleum plume: a mixture of crude oil, diesel, and gasoline floating on top of the groundwater. The spill destroyed property values and closed the beach and town to tourism. Adding to the plight of property owners and residents were fears that their health had been compromised because they had lived for decades with hydrocarbons under their homes and businesses.<sup>15</sup>

Finally, playing into this theme of rampant neglect was the resurrection of an older Unocal spill at an abandoned storage facility—The Tank Farm—through local press accounts. In 1926, 128 million gallons of crude oil went up in flames due to a lightning strike on storage tanks. The spill, according to county activists, was avoidable if Union Oil (now Unocal) had “only installed grounding wires.” Much of the oil that did not burn has never been recovered and still lies beneath Unocal’s property. In recent years, the oil-contaminated land has become an issue as the city of San Luis Obispo expands. For instance, the underground pollution has foiled plans by the city to annex the property and build a regional airport—the price tag for cleanup was too high. The point is not that the grounding wires could have averted disaster (I am not taking a position on that issue). Rather, it is the blame that locals retrospectively see in Unocal’s “history of negligence” that is a constant across these incidents and that currently holds sway in the county.

The Guadalupe spill also appeared in the media in this period and thus within this history and growing perception of institutional negligence. The *San Luis Obispo Telegram-Tribune* dedicated 162 stories to this issue between 1990 and mid-1997. Initially, however, local coverage was light, with only 28 stories appearing between 1989 and 1993. Coverage picked up dramatically with major government intervention in 1993 and 1994 (80% of all coverage came after 1993), the same years that estimates of the spill’s volume made it clear that it was huge (see Figure 1).

More important to regional impressions of the Guadalupe spill than the brief spike in news coverage has been the consistency of stories that discursively connect oil mishaps around the county. In this regard, the local presses’ power to frame local oil issues and events as a connected set of occurrences is truly noteworthy. As an illustration, in a story that relates the 1992 Pirates Cove spill titled “Oil Washes Ashore at Avila,” an accompanying inset story relates Unocal’s troubles at the Guadalupe Dunes, Avila Beach, and at their oil-contaminated Tank Farm property.

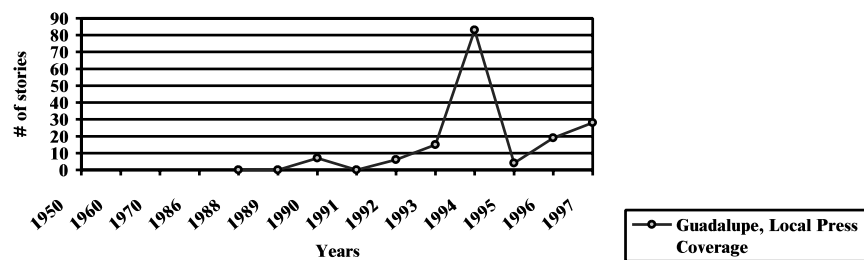


FIGURE 1: Local Newspaper Coverage of the Guadalupe Spill, 1989 to 1996

Titled “Unocal: A Leaky Environmental Record,” the story goes on to relate all of Unocal’s troubles to that date, giving county readers a “rap sheet” of negligence:

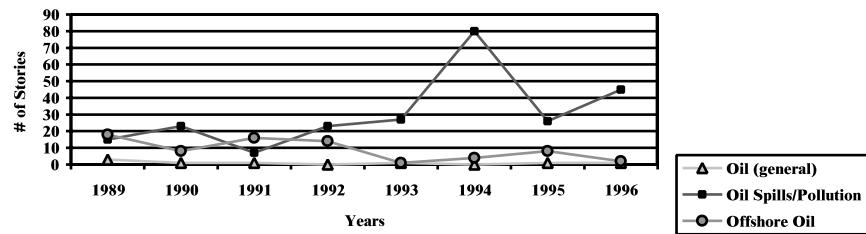
It hasn’t been a good month for Unocal. For that matter it has not been a good last couple of years. . . . Over the past few years the company has had one environmental problem after another. There’s the expensive clean up of decades worth of gas, diesel, and crude from under downtown Avila . . . there’s the continued friction with neighbors of the company’s refinery over odors . . . [which] have lead to fines . . . and several lawsuits . . . not to mention the underground contamination at its Tank Farm Road facility and another at Buckley Road. . . . The continuing problems . . . are starting to catch the eye of regulators. (Greene, 1992b, p. A1)

This kind of tone is consistent in coverage concerning petroleum-related issues and events. In tabulating petroleum-related articles between 1989 and 1996, I found a preponderance (246 total stories, or 76%) of them to be oil spill/pollution stories (see Figure 2).<sup>16</sup> Furthermore, if the *Tribune*’s coverage of the federal government’s locally contentious proposition to develop oil off San Luis Obispo’s southern coast and “oil-as-pollution” stories are aggregated, the latter represents fully 98% of articles that focused on petroleum and related issues for the 7-year period I investigated.

In another instance, in San Luis Obispo’s weekly, the *New Times*, the inaugural February 1994 story covering the Guadalupe spill, titled “The Silent Spill,” was followed by a story titled “Guadalupe Isn’t the First” (Bondy, 1994). In a subsequent April issue that recaps the spill, information concerning Guadalupe’s pollution problems are sandwiched between (and referenced within) stories titled “Corporate Crime: Crime Pays Just Fine—If You’re Rich Enough” (Fiorenza, 1994); “Just When You Thought It Was Safe: Before You Step Foot in the Ocean, You Better Read up on the Link Between Ocean Pollution and Disease” (Decarli, 1994); “Unocal’s Other Spill: While Guadalupe Dunes Steals the Headlines, Another Huge Underground Spill Goes Unnoticed and Unattended to in San Luis Obispo” (McMahon, 1994a); and finally, “Unocal Keeps Popping Up on the Underground Spills List” (McMahon, 1994b). The last two stories account for and connect eight local Unocal spills.

#### *Connecting the Pollution Dots and Distrusting Big Oil*

Having addressed the context within which the Guadalupe spill became a public event, I turn my attentions to community informants and how they have articulated their impressions of this massive petroleum contamination event. A handful of



**FIGURE 2: Local Newspaper Coverage of Petroleum-Related Issues and Events, 1989 to 1996**

comments by community members are indicative of how these pollution events and responsibility for them have merged—the Guadalupe spill is the last and biggest, and in the words of a local resident, it

was the straw that broke the camel’s back; it was just like the community said, “I can’t believe they’re pulling this again.” And so there was a lot of anger and hatred . . . around that. . . . “Unocal is screwing us again. They are spilling a bunch of oil into the ground, and they don’t want to clean it up . . . we don’t want oil!” (Interviewee 2, male, 30s, San Luis Obispo County environmental activist, 1996)

Further exemplifying this blending of pollution problems, another local activist commented on the unlikely discovery of the spill at Guadalupe given its invisible and creeping profile, on Unocal’s recalcitrant nature, and the other spill events as part of a larger context within which the Guadalupe spill was imbricated:

No one would have known about it if it hadn’t leaked in the ocean. It would have been ongoing for—nobody knows how long it’s been going. Whether Unocal bought it and it was leaky, or while Unocal had it, which to me is more potentially to the point because their whole pipeline system in this county and statewide has been, “We will leave it in the ground until it breaks, and then we will fix it.” So, they are reactive not proactive. . . . There are a number of leaks around here . . . have you been to the Tank Farm or Avila? . . . The technology was there, but they had not put up lighting rods to avert a catastrophe. So their mentality, I mean they don’t give a shit! And it goes way back. (Interviewee 1, male, 40s, San Luis Obispo County environmental activist, 1996)

Across sources, community residents frequently remarked on Unocal’s “leaky” history, relating the connection that all these pollution events had to the Guadalupe spill:

One of the things that’s most disturbing was the denial that took place. Once the spillage was suggested, Unocal got in a mode of denial for many months stretching into probably years until the extent of the spill was actually measured. And then it was, “gee what a surprise.” Well these people are educated, they’re paid well, I know the oil companies hire some of the best, the best they can, these are not dumb people so one has to conclude that they were covering up—illegal events. . . . When you have materials in Tank A and you pass that to Tank B and 50% of it dissipates somehow, one should conclude that you have got a hole in the pipe somewhere! (Interviewee 3, male, 40s, San Luis Obispo County resident, 1996)

[Unocal] has had leaks out there for years (Guadalupe). One was at Shell Beach, one was at Pirates Cove, and the other was on the Avila site itself. Three times those lines have broken. What are they doing!? [Unocal's response] "Well, let's sell all our assets and move out of California now." (Interviewee 4, male, 40s, San Luis Obispo County resident, 1997)

Okay, leaking pipes. This has been a characteristic of Unocal as far as I know. . . . They have a refinery and when I first came here. . . . I studied this refinery. . . . I found that they are producing 34 tons of [toxic] sulfur dioxide every day . . . Wooaah! (Interviewee 5, male, 70s, San Luis Obispo County environmental activist, 1996)

Two more comments show that Unocal's recent spills and the county's history with oil are not taken as differentiated instances. "Let me make this point . . . there is no difference between the way they are handling Avila and Guadalupe. . . . Unocal's constant lying, foot dragging, and misleading, and just their whole game—Unocal has no standing at all!" (Interviewee 1, male, late-40s, San Luis Obispo County environmental activist, 1996). According to another, "They have 75 years of bullying everyone around or buying them off . . . and it didn't happen this time . . . no one would let them off the hook. . . . It was Guadalupe that unified the community, and Avila came up next" (Interviewee 6, male, 40s, San Luis Obispo County environmental activist, 1996).

Observations such as these and a wealth of others gained through interviews, conversations, and participation in local events left the lasting impression that outrage over the Guadalupe spill is more than simply a response to the petroleum spilled into the dunes. Interviewees seldom spoke about the Guadalupe spill without referencing "those other controversies or mishaps." Reactions, as the above quotes exemplify, have consistently been couched in historical terms that "remember" the petroleum industry as untrustworthy and undermining to local interests (Beamish et al., 1998; McGinnis, 1991; Nevarez et al., 1996).

### *Institutional Betrayal and the State: Distrusting the Protectors*

Amplifying community anger over the Guadalupe spill has been an expressed belief that state and federal governments have, as one dunes advocate characterized it, "dropped the ball." Recent risk research has come to focus on trust in authority as an essential factor in the formation of impressions of threat (see Edelman, 1988; Erikson, 1976, 1994; Freudenburg, 1988, 1992, 1993; Freudenburg & Youn, 1993; Walsh, 1981, 1988; Wynne, 1996). The lay-public trust, according to this research, is easily lost and hard to regain (see especially Freudenburg, 1993). Reconstructing where and when it was lost and its effect on subsequent events is instructive, especially in Guadalupe's case, in which locals consistently expressed distrust in the regulatory authorities and Unocal in the same breath:

Initially there was a great deal of frustration locally that . . . not only was the state not doing something, the state appeared to be in collusion with Unocal to put the brakes on a public spot light. . . . The evidence of criminal misconduct is pretty plain. I mean you just don't spill that many gallons of oil and say "Whoops. Gosh, how about that!" . . . I don't know because I think that basically the state agencies and the oil companies . . . what is the right way of phrasing—I don't want to say they are sleeping in the same bed, but I think at the time there was probably not a lot of direction from the leadership on the state level to really look at corporate



pollution. . . . I don't believe there is really anybody who believes the oil companies. I believe their credibility is shot. I think that everyone knows that they lie, they do horrible things, and they cover up stuff, and that is pretty much the way they have done business from day one. (Interviewee 7, male, 30s, San Luis Obispo County environmental activist, 1996)

Other respondents, such as the 70-year-old county activist quoted in the first excerpt below, commented on the basic motives, as they understood them, of those responsible for seeing to it that the spill was taken care of (both Unocal and the government agencies involved). As echoed in the following quotes, many felt that response was the outcome of public relations worries more than it was a bona fide concern with solving the contamination problem at the dunes:

I do know at the beach the Coast Guard . . . made them [Unocal] spend 20 million dollars cleaning up the stuff on the beach and building a barrier, I mean big massive lights on and derricks and trucks and all that crap. A big show, but it didn't impress me. . . . It shows that man is a not as smart as he thinks—he calls himself Homo sapiens, but he is Homo sap for sure—we screw up so much. (Interviewee 5, male, 70s, San Luis Obispo County environmental activist, 1996)

Things like Guadalupe . . . probably won't ever be cleaned up, it's gonna be "contained" whatever that means. It won't be contained, it will dissipate in many directions, vertically, horizontally, it's going to leech into the near shore environment. No matter how many walls, containment walls, metal walls, plastic sheets, whatever they want to construct . . . that's just a big show. It's to convince some people that the companies are being responsible. Pretty much a joke. (Interviewee 3, male, 40s, San Luis Obispo County resident, 1996)

And in another activist's words:

They were using a Unified Command Structure [for an emergency response]; we had the U.S. Coast Guard, California Fish and Game, and Unocal as this triumvirate! And they came and really were just slammed by the public. . . . We were protesting the idea, we thought there might be greater damage in the long run in dealing with [the chronic problem] as if this was an emergency [excavation project and beach cleanup]. Although we were the Environmental Center [of San Luis Obispo], we came out against their Emergency Action Plan. (Interviewee 8, female, 40s, San Luis Obispo County environmental activist, 1996)

These kinds of sentiments are well understood in the region. Industry and federal and state regulators know they confront a suspicious community, one that is ready and willing to challenge their intentions when and if the occasion arises. For example, following emergency excavations at the Guadalupe Dunes to stop the migration of petroleum into the ocean in 1993, the U.S. Coast Guard initiated an "Incident Specific Preparedness Review," which assessed their spill response protocols. In this review, the Coast Guard, although self-congratulatory throughout, granted under outline title "IV Public Affairs" that they needed to do a better job promoting their activities:

In general . . . the state and Coast Guard Unified Command members failed to fully anticipate the intensity of the "public perceptions" controversy that grew up around the response. Public affairs [in the future] must be viewed as a critical success factor and must be applied proactively. (U.S. Coast Guard, 1995)

Public perceptions in this instance referred to the vociferous opposition mounted by community activists against the Coast Guard's "right" under the Oil Pollution Act of 1990 to circumvent local permit approval and compel Unocal to dig up the beach bordering the dunes. Acknowledging the same community perceptions, a Unocal supervisor who had been part of the cleanup effort remarked on how the county reacted to the spill and Unocal's cleanup proposals: "They went nuts! They want to punish Unocal for this spill" (Interviewee 9, male, 40s, Unocal corporation supervisor, 1997).

This distrust of "outside" organizations,<sup>17</sup> government institutions, and corporations is something that has emerged (like local sentiments concerning oil) from a history with them. Their disregard, in the minds of San Luis Obispo activists and community members, for the preferences expressed by county citizens has made them suspect. In Guadalupe's case, the federal and state governments' poor handling of the criminal case against Unocal reinforced this. Community members and environmental advocates often related their skepticism that the state and federal governments were looking out for the public interest. Three longtime county activists—a woman who volunteers for a local environmental advocacy group, a dunes advocate who wants to see the dunes become a national seashore, and another man who had worked on a legal case filed against Unocal by a surfers' alliance—express their distrust of both state and Unocal intentions in the following ways:

I'm pissed off at the governmental process. Fish and Game, Water Quality Control Board, Department of Public Health, shit, they're weenies; try to get anything out of them! Department of Health still has some guy who used to work for Unocal. He spends his time defending the company. [As for] the different agencies involved, once the Coast Guard got wind [of how big the spill was], it became this commando system—there was no stopping or slowing them. These are the feds, man! [As for Unocal] they have been operating in California for over 70 years, only now, with aging capital and heightened public awareness on environmental pollution will they need to make some serious changes. (Interview 10, female, 30s, San Luis Obispo environmental activist, 1997)

Denial, denial, denial. They took the boxes of records [the California Department of Fish and Game] and then filed charges [against Unocal] one or two days after the statute of limitations. That just boggles my mind. . . . I'm a little skeptical. . . . They had hearings in Guadalupe. . . . I remember this young lad standing up and saying, "You mean to say, you didn't know that this diluent was disappearing, and there was eight million gallons. Don't you keep records of what flows through the pipes?" Denial, denial, denial. . . . It was amazing. . . . I mean the pipes were conducting diluent, 87 million gallons, some say 8 million, whatever, a lot. They found out [the state attorney] and brought charges and filed one day late. Ha ha, ha, ha. Statute of limitations had been exceeded by a day or two. Oh God! . . . I have suspected all these years that they [Unocal] paid heavy contributions to candidates that were in their pockets. (Interviewee 5, male, 70s, San Luis Obispo County environmental activist, 1996)

See, here is a [California] Fish and Game report showing that there was oil in the water in February 1990 and that the local Unocal field supervisor was maintaining that the oil on the beach and in the ocean was not coming from Unocal and that it did not match the so-called footprint of Unocal oil. And you know that was just pure fucking unadulterated lies! And so [the Department of] Fish and Game just kind of failed to follow up on this stuff. (Interviewee 11, male, 30s, San Luis Obispo County environmental activist, 1997)

This suspicion of institutional intentions was a strong undercurrent that ran throughout conversations (both formal interviews and informal conversations) with community members about the spill, its progression through the courts, and actions taken to clean up the field. At times, distrust was articulated through quasi-conspiracy theories that included references to a state administration that is “pro-big business” at the expense of local grassroots concerns. Given the circumstances surrounding the collapse of the criminal case, this point of view is not without a foundation, at least in outward appearances. According to community activists, the state’s inaction is proof enough of where their priorities lie: “Initially they [the state] were not overzealous about cooperating with the county [regulators] and local environmental groups. In other words . . . the state people would have liked for this thing to not have gotten [any attention]” (Interviewee 7, male, 30s, San Luis Obispo County environmental activist, 1996).

In yet another expression, a local beach walker inveighs against what he sees as institutional failure. The lay public was, in his mind, purposefully left out of official legal and remedial processes by state and federal regulators. This left him doubtful that institutional and ameliorative “things are in place to prevent” the Guadalupes of the future:

The anger that we felt early on was being stonewalled, we thought by everybody involved, the agencies, as well as the Unocal perpetrator . . . you still feel anger and you still feel, are things in place to prevent that from happening in the future? (Interviewee 12, male, 50s, San Luis Obispo County resident, 1996)

These statements reveal, in Freudenburg’s (1993) terminology, a *recreant* community demeanor.

Michael Edelstein (1988, 1993) has observed analogous forms of distrust in communities that have experienced both siting controversies and instances of contamination. Although Edelstein’s focus is on hazardous facility siting, some of the conclusions he has drawn are helpful in understanding the genesis of institutional distrust that has been observed in the comments of San Luis Obispo County residents. Edelstein (1993) relates how extensive community experience with proposed or actual hazardous waste facilities can result in a stigmatized social psychology (p. 76). The psychosocial response to such proposals is a corresponding sense of victimization, both in the individual and collective sense (Couch & Kroll-Smith, 1985, 1991, 1994; Edelstein, 1993; Kroll-Smith & Couch, 1990, 1991, 1993). In such circumstances, those who see themselves as the “victims of outside” and human-based intentionality (e.g., the siting of a threatening facility in their midst against their collective will) exhibit an understandable predilection to blame—blame the polluter, blame the government for inadequate prevention and inadequate help, and so forth (Edelstein, 1993). Stigma, at a deeper psychological level, also has an associative quality. Being associated or associating oneself with pollution, contamination, or hazardous waste is also fundamentally disturbing (Couch & Kroll-Smith, 1985, 1991, 1994; Edelstein, 1993; Erikson, 1994; Kroll-Smith & Couch, 1990, 1991, 1993).

Distrust, however, is not solely the result of such stigma. Beyond the potential or actual threat posed by the proposal to install a hazardous waste facility (or its actual installation), the events surrounding contamination controversies also engender distrust (Edelstein, 1988; Freudenburg, 1993). Suspicion emerges from feelings of vulnerability: “As residents ponder why the disaster was made or allowed to hap-

pen, they question whether government, industry or others had the ability to cause or prevent the exposure, and whether they attempted or intended to do so" (Edelstein, 1993, p. 78). Those who confront such threats read their social environment for cues, allocating expectations and responsibility to different actors based on their relationship to the problem at hand (Kroll-Smith & Couch, 1993).

As can be gathered from the preceding analysis, a frequent target of this distrust, outside the responsible party (i.e., Unocal), is the government. Governments determine whether a proposed activity will be permitted, are responsible for monitoring societal threats, and assure, in the advent of a mishap, that they are taken care of. Further sources of doubt and community distrust emanate from a number of other social interpretations. These include the inability of the same government institutions to address uncertainty, given that they (i.e., "the experts") often concern themselves with relative risks (i.e., whether the spill was acutely dangerous), whereas communities often react to holistic risks (a history of spills that are collectively "dangerous"; see Freudenburg, 1993); governmental failure to convince residents of the truthfulness of the information or conclusion they have drawn in light of previous "failures"; and the pseudo-secret processes that shroud decision making in such circumstances (Edelstein, 1988). Falling short on any one of these seems a sure ticket to community distrust, yet they tend to characterize institutional procedure and response in hazardous scenarios.

One can see many of these elements outlined in the sociohistorical context of San Luis Obispo County. From the threat, stigma, and subsequent distrust dredged up during the siting controversy surrounding the Diablo Canyon nuclear facility, with those posed by potential offshore oil developments, to the current problems at Guadalupe and associated oil spills, distrust in industry, governmental, and to some extent outside organizational intentions (generally) has become rife.

## CONCLUSIONS

Through the foregoing, we have learned that in the opinions of the San Luis Obispanians interviewed for this research, the Guadalupe spill does not exist as an isolated event; rather, it symbolically represents a history of corporate and governmental negligence. In San Luis Obispo County, the move from oil spillage as a decontextualized occurrence to a connected pattern of pollution events mirrors a general trend that has been noted throughout the literature concerning environment and perceptions of risk and trust (Beck et al., 1994; Erikson, 1976, 1991, 1994; Freudenburg, 1988, 1993; Giddens, 1990, 1991; Lash, Szerszynski, & Wynne, 1996). The Guadalupe spill, presented by some as a disconnected anomaly—the expected outcome of oil production<sup>18</sup>—was seen by community members as yet another example of institutional neglect. This also parallels a transition that took place in the 1960s and 1970s, from a situation of relative security over issues concerning the environment to one fraught with partially identified and looming environmental threats (Enloe, 1975; Gottlieb, 1993; Szasz, 1994; Weale, 1992).

Increased environmental insecurity is inextricably intertwined with growing distrust of big business and those government institutions that have been entrusted with ensuring public health and safety (Beck et al., 1994; Freudenburg, 1993; Giddens, 1994; Lash, 1994; Wynne, 1996). Analogously, the people spoken with about the spill in San Luis Obispo County look at corporate business practices and expect nothing but the worst. Given what was expressed by my interviewees and others I observed while conducting this research, I agree with Douglas and Wildovsky's (1982) observations: Americans do not seem to trust the "center."

either big government or corporate America. I disagree, however, with their conclusions concerning the rationality of this skepticism. Given San Luis Obispan's collective experience, this distrust can be seen as based on sound reason.

What lies at the root of this deep distrust of Unocal and outside regulators? Has it been the pollutant they confront under the Guadalupe Dunes? Is it the danger to health and safety? Although these provide a foundation for reactions, taken as the sole determinants to community response they miss a great deal. Although there has been disagreement voiced over how caustic diluent is (or will be), trumping these questions of toxicity are strong reactions to what is locally seen as a breach of trust on the part of Unocal and federal and state regulators.<sup>19</sup> That is, the risk presented by the Guadalupe spill is founded in interpretations of intentionality: that Unocal was responsible for it; that it was not accidental but the outcome of disregard; that once it was "discovered," local Unocal managers denied it; and that it was part of an observed pattern of neglect. Moreover, according to community members interviewed for this research, state and federal regulators were slow to react or push for resolution. In essence, they had not fulfilled their obligation to the lay-public trust. This, according to locals, also fits the history they have with federal and state authorities that have ignored their local concerns in favor of industry.

Although it is fairly isolated, the Guadalupe spill has come to symbolize what threatens the environment and the county more generally. As a symbol of corporate and governmental neglect, the Guadalupe spill has worked to reinforce doubt in authority and its aims. Put another way, what is "risky" about the Guadalupe spill derives from the local lack of trust in the institutions responsible for causing it, curbing it and preventing it in the first place. Thus, the experience of risk among residents is tremendously encompassing and provokes questions and fears about what other hidden hazards are being kept from the public.

As a case, the Guadalupe Dunes spill provides a view of how one community responded to and understood this major, yet deceptively "silent," pollution problem. It has demonstrated how important the broader social and historical context is to the interpretation of risk and reactions to risk. Although the immediate potential threat to Guadalupe's lay-public health is real, the more salient feature of the spill lies in what the spill represents symbolically—betrayal, distrust, malfeasance, and institutional failure. This is a hermeneutic conception (i.e., we can only understand the principle of risk in relation to the whole discourse within which it is part) at variance with traditional notions of risk as operationalized in more formally accepted assessment and mitigation methods (see excellent reviews by Clarke, 1993; Finkel, 1996; Freudenburg, 1988, 1994; Mitchell, 1990; Rayner & Cantor, 1987; Shrader-Frechette, 1995, 1997; Tierney, 1999). In such approaches, still dominant in policy formulation and decision-making circles, the lay public is left out unless it can articulate grievances in an appropriate calculative manner—generally in terms of probability or provable sustained damages and in regard to a simple isolated trouble.

Whether it is the psychometric heuristics, utility, or probability arguments, none of these theoretical approaches does justice to the rationality employed by San Luis Obispan's in understanding the Guadalupe spill. Alone, each of these models is an intellectual abstraction often adopted by powerful actors in real-life settings for practical and opportunistic reasons as much as they are to objectively ascertain the risks involved in any particular scenario. Locals have taken a different approach. They have rationally identified a pattern of misconduct and behaved (or at least believed) accordingly. At their root, the prevailing theories of risk assessment and perception would assert that San Luis Obispan's address nuclear power, offshore

petroleum development, a collection of petroleum spills, and the largest spill in U.S. history as isolated issues and events. But San Luis Obispan, for their part, have not gone along. Instead, they have connected the Guadalupe spill to their larger struggle to assure the health and well-being of their home—a rational approach given what is at stake for them.

In conclusion, I would like to underscore the nature of this research as an exploratory effort, one that uses a particular case of contamination as an exemplar to better understand how the lay public responds to critical and environmentally troubling scenarios. My approach, working from a local context based on field research and in-depth interviews with a limited sample of respondents, has obvious limitations. Notwithstanding these shortcomings, this case has illustrated how important and overlapping social and historical factors are in understanding lay-public interpretations of risk. Although at first blush, fear of environmental hazards and ecological crisis may appear messy and irrational, they make much more sense when analysis includes the broader environmental and social context within which such impressions are embedded.

#### NOTES

1. Current estimates of the Guadalupe spill range between 20 and 8.5 million gallons of diluent. Unocal (the oil company responsible for the spill) officials provided the lower figure, and local, state, and federal regulatory agency personnel estimate the higher number. The second largest spill in U.S. history, the Exxon Valdez tanker accident, is estimated to have involved between 10.1 and 10.8 million gallons of crude oil.

2. This article is part of a larger project that won the Best Dissertation Award given by the Organizations and Natural Environment Interest Group of the Academy of Management (2000). The article is also to be published as a book titled *Silent Spill: The Organization of Industrial Crisis* (Cambridge, MA: MIT Press, forthcoming).

3. What Susan Shapiro (1987) refers to as “agency relationships” (pp. 626-627).

4. Allan Schnaiberg (1980), in *The Environment: From Surplus to Scarcity*, makes an important distinction between what he refers to as high prestige *production science* (real science, hard science, and precise science), whose primary responsibility is the development of new applied “technologies” (technology in the broadest sense) in association with industry, and what he terms the *impact sciences*, whose primary objectives are in ascertaining the impacts of technologies that have been introduced.

5. The waste management industry has functionally employed this model, aggressively pursuing locations with high unemployment and poor economies in the hope that promises of work and tax base support, coupled with strong claims of safety, will compensate and in so doing win local support for their facilities (Bullard, 1990; Hofrichter, 1993; Szasz, 1994).

6. The most notorious protests of this sort occurred with regard to nuclear power.

7. For an applied example, see Ad Hoc Risk Assessment Review Group’s (1978) evaluation of the Nuclear Regulatory Commission (1975) report on nuclear reactor safety.

8. Federally threatened flora include the marsh sandwort, gambells atercress, la graciosa thistle, surf thistle, and beach spectacle-pod. Threatened wildlife, which are known to frequent the area, include the steelhead trout, tidewater goby, peregrine falcon, California brown pelican, California least turn, and western snowy plover. A list of some 40 other state and locally threatened plant and animal species are also of concern at the site (Arthur D. Little, 1997).

9. I used FolioViews, a qualitative text-based manager, to analyze these conversations. Like other database software, FolioViews enables extensive cross-referencing, indexing, and grouping among an inventory of advanced search and retrieval options that enhanced my ability to repeatedly access transcribed discussions and e-mail correspondence that followed interviews.

10. For instance, the tourism industry touts San Luis Obispo's natural beauty, as do local retirement communities.

11. Moreover, oil fields in San Luis Obispo are generally located on isolated ranches and agricultural lands that have concentrated oil revenues in the hands of a few wealthy landowners. Additionally, unlike other regions where minor operators proliferated, a few large operators monopolized the oil business in the county (Beamish, Molotch, Shapiro, & Bergstrom, 1998; McGinnis, 1991).

12. The party responsible for the Santa Barbara oil spill was Union Oil, a fact not lost on San Luis Obispanians. They also suspect the name change from Union to Unocal, a permutation rumored to have been the outcome of negative publicity connected with the older name, following the 1969 Santa Barbara spill.

13. James Watt was secretary of the interior during the first term of the Reagan administration, 1980 to 1984.

14. Measure A was a ballot initiative that sought to restrict onshore support facilities for offshore oil development in San Luis Obispo by making any such development project subject to popular approval by vote. Countywide voters approved the measure by a 53% to 47% margin. An interesting caveat to the election is the amount that the oil industry spent to defeat the referendum. The petroleum industry outspent Measure A proponents \$10 to \$1 (in thousands of dollars; see Beamish et al., 1998; McGinnis, 1991).

15. The state of California forced Unocal Corporation to purchase a majority of the downtown area parcels and excavate the entire central section of the town.

16. For the period between 1989 and 1996, I found 325 stories that focused on "petroleum" as a topic area. Eight stories covered "oil" as a relatively neutral and specific topic area, 246 treated "oil spills" as a specific topic area, and 71 under "offshore oil" as a specific topic area. A note on my search method: Because the *San Luis Obispo Telegram-Tribune's* story index is organized differently before and after 1991, the method I used to search for and locate stories varied slightly. For the years 1989 and 1990, I searched the *San Luis Obispo Telegram-Tribune* story index for "oil stories" using the key words (in alphabetical order) *hazardous materials, local environmental issues, offshore oil, oil, oil drilling, oil tanker(s), petroleum*. Most of the stories found for these first 2 years were located in the subcategory "local environmental issues." Because stories within the index are cross-referenced and can fall within multiple categories, my search included scanning each story's headline to ensure that each was counted only once (each story is indexed under a subsection title, then by headline, section where story appears [A1, A2, . . . B1, and so forth], and then column number). For instance, stories concerning Guadalupe's spillage could be found under the subtitles "Guadalupe," "Guadalupe Dunes," as well as "oil spills." Beginning in 1991 and carrying through 1996, the categories of "oil," "oil spills," and "offshore oil" were consistent across years (and continued to be cross-referential with other index categories in which such stories could fall). Following 1991, because I found the three categories of "oil," "oil spills," and "offshore oil" to be inclusive, I tabulated the number of stories found in each of these and no other categories.

17. Although primarily directed at corporate and governmental institutions, county distrust of outside intentions is not exclusive to them. In 1998, the Los Angeles-based legal council of the Surfrider Foundation initiated a suit directed at Unocal (as well as state and local regulators) for polluting coastal waters and not fulfilling the public trust in the name of local surfers. Some locals have bristled, "I'm on the side of Unocal as regards Guadalupe Dunes. Surprised? That surfing group [Surfriders] appears to be out for money and nothing else. Their claims are ridiculous." Although this respondent's statement was unusual, it does reveal a deeper sense of who is to be trusted that was mirrored in the comments of others to whom I have spoken (e-mail exchange, male, San Luis Obispo County resident).

18. For the sake of comparison, a turn-of-the-century example of how oil was viewed in the Gulf of Mexico and early California is informative. Oil "gushers," as they were referred to at the time, evoked images of progress, events that we now refer to as oil spills. Historian Joseph Pratt (1978) writes of this period,

In the rush for instant wealth, oil wealth, oil was seen as black gold, not black sludge. The gusher was an ecological symbol for this early period—photographs of the Lucas Gusher went out across the world, showing the magnificent spectacle of the six inch stream of oil rising more than 100 feet above the top of the derrick. So powerful was the image that wise well owners arranged to turn on similar gushers for the entertainment and persuasion of potential investors. In this atmosphere of uncontrolled exploitation, few cameras recorded what happened to the gushing oil after it splashed to earth. (p. 4)

19. This statement should be qualified. Recently, a small group has become more vocal concerning the spill and issues of health impacts (i.e., health risks). The Surfrider Foundation, a California surfers' advocacy group, filed suit in 1998, claiming that under Proposition 65 "right-to-know legislation," Unocal Corporation had failed to warn surfers of their spillage. Because it is potentially toxic, they claim that Unocal is responsible for compromising local surfers' health and thus must pay for that breach of responsibility. See The Case Under Study section for more on what was spilled and what may be toxic about it and Note 18 for a surprising local response to the suit.

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