

**DISABLING COMMUNITIES:
THE IMPACT OF
REGULATORY PROCEEDINGS***

MICHAEL R. EDELSTEIN, PH.D.
*School of Environmental Studies
Ramapo College of New Jersey*

ABSTRACT

The social impacts of regulatory decision making upon affected citizens are evaluated. In part, these impacts stem from the differing perspectives of regulator and citizen regarding communication, expertise and acceptability of risk. A hard approach to regulatory decision making results in procedures which can have a "disabling" effect upon citizens. Analysis of a case study is used to illustrate the dynamics of disabling. The field of social impact assessment should address these process issues as well as being concerned with impacts associated with the project content.

Social impact assessment customarily attends to the direct impacts of a proposed project, attempting to introduce into the decision-making procedure some basis for anticipating the human consequences of the project. It is the contention of this article that the decision-making process through which a project is evaluated generates its own impacts as well. Therefore, attention to the process as well as the content becomes central to the growing field of social impact assessment. The focus in such an analysis is upon the citizen/regulator relationship as mediated by the decision-making format. This article presents an illustrative case study. Before reviewing this case, however, it may be helpful to develop a perspective from which the case will be analyzed.

* An original version of this article was presented at the conference "Social Impact Assessment: The State of the Art," Vancouver, B.C., October, 1982.

BIAS INHERENT IN REGULATION

The attempt to rationalize technological innovation in industrial society mirrors the assumption in capitalist ideology that the market place is neutral [1, 2]. Accordingly, it is readily overlooked that technology is not itself neutral, having profound implications for the value choices that society will make. Furthermore, the decision-making role of the regulator may be seen as neutral, when in practice it assumes fundamental biases which in themselves have far reaching consequences both for outcomes and for the perception of the regulatory process. Each of these issues, the neutrality of technological choice and of the regulatory decision process, must be further explored to suggest the bias inherent in regulation.

Technology is Not Itself Neutral

Technology has structural implications that extend into social and political realms as well as into the technological domain. Thus, Lewis Mumford distinguishes between authoritarian and democratic technics, noting that the democracy which accompanied the industrial revolution has come into direct conflict with the increasingly centralized and authoritarian technics employed by industrial society [3, 4].

A similar distinction is found in the debate over energy choices. Thus, Lovins contrasts “hard” and “soft” energy paths [5]. A hard path relies upon centralization, lessened diversity, loss of tradition and personal freedom and it pits local autonomy against central authority. In contrast, a soft path is flexible, resilient, sustainable, benign, renewable, diverse, low technology and convivial [6].

Implicit here is the likelihood that the choice of a technological system will limit the future degrees of freedom open to a society in ways never considered in the original choice of technology. Thus, the characteristics of dominant technologies become societal characteristics as well, often without recognition of their influence. Accordingly, it is suggested that technological innovation is not neutral, nor is it outside of the domain of values. And, yet, little if any room is allowed for far ranging value discussions in the rational and technical context of regulatory decision making which serves as our only gatekeeper for the entry of most innovations to the market place.

The Regulatory Role is Not Neutral Either

While it is not uncommon to view the regulator as a public servant whose primary function is to protect the public interest, this perspective is not borne out by a more careful assessment. The neutrality (or rationality) of modern regulatory process stems from its limiting the overt influence of value (i.e., political) considerations in favor of legal/technical ones. Yet, is this role truly neutral?

The development of large-scale government intervention in the marketplace during the depression occurred in recognition of the failure of self regulation [7]. This intervention came about to prop up rather than to limit the private sector. Therefore, reflecting the ever present compromises in authorizing legislation, the regulator's role may be inherently facilitative of private enterprise even when it is overtly scientific, evaluative and objective.

Given that a project is normally proposed by a private sector applicant and often questioned by the citizenry, this bias can be detected in the openness of the regulator to the question of whether the project should or should not occur. An open process would provide a means by which citizens might check innovation, thus disrupting the marketplace. Accordingly, regulators frequently act to insulate the market from the potentially disruptive and destabilizing effects of full citizen participation [8-10]. As a result:

Regulatory agencies respond to that desire (for public involvement) by engaging in public impression management while they serve the very economic interests that they are meant to regulate [8, p. 91].

Such bias occurs behind a neutral face, for example by the adoption of market criteria as in the use of "rational" techniques to achieve efficiency in a formerly social domain of decision making [2, 8-11]. Thus, the methods developed for regulatory action embody the values of the marketplace and protect the marketplace from disruption while appearing to be neutral. Accordingly, it is no wonder that the very nature of regulatory technocracy, where professionals exercise authority by virtue of their technical competence [10] invites citizen participation to become merely a token part of the process. Nelkin amplifies this point [12, p. 2]:

... Specialized bureaucrats that develop technical projects function according to a formal system of rules and procedures designed to fulfill narrowly defined objectives. Decisions are made on the basis of specialized technical competence, and there is little tolerance for the uncertainties and unpredictability that wider citizen involvement is likely to introduce. Bureaucrats assume that their plans reflect a broad public consensus on the ultimate value of technical progress. They identify their actions with the public interest and seek to maintain their autonomy and remain insulated from the political process.

In line with this, administrative procedures are designed to avoid unfettered citizen involvement. Such participation might be too unpredictable to be easily managed. Questions might arise which cannot be easily answered by technical experts; such questions must be avoided for the sake of efficient policy making. Thus, for example, regulatory procedures routinely limit the range of options that must be considered [8]. What is labeled as "citizen participation" is intended to manage citizen concern, providing only for catharsis and lip service to democratic principles.

The market bias of regulation, therefore, colors the regulatory process. The implications of this influence are far reaching. Paralleling the “hard” and “soft” characterizations of technocological choices, Dickson has contrasted “technocratic” and “democratic” paradigms of regulatory action [9, pp. 72-73].

The technocratic paradigm proceeds by:

1. making a best estimate of risk as a basis for regulations which cause the least economic burden to the private sector,
2. caution is defined in the sense of not overestimating risks to the point of challenging the viability of the private sector by threatening profits,
3. victims of corporate actions must have experts certify their claims before they can be accepted as having any significance,
4. utilizing the marketplace as the most efficient means to control risks.

In contrast, a democratic paradigm of regulation would:

1. consider the probability of technological hazards from the point of view of the victim,
2. define caution as favoring safety over profit by not requiring conclusive proof of a hazard before taking preventative steps,
3. gives to those most likely to bear direct consequences the right to weigh the probability of risk and select a course of action.

In recognizing the market slant of modern regulation, it is not surprising that the technocratic paradigm is the one most frequently encountered in consideration of projects. What, then are the key dimensions in the study of such processes?

KEY CHARACTERISTICS OF A HARD APPROACH

While many facets of a technocratic approach to regulation can be subjected to study, three characteristics which are particularly salient involve: 1) the distortion of communication, 2) the belief in the neutrality of the expert, and 3) the selection of criteria for judging risk. It may be instructive to review each of these briefly.

Communication between Regulator and Community

Building upon the basic analysis of Jurgen Habermas [13], John Forester has applied to planning the study of communicative action which

- ... sets the stage for an empirical political analysis exposing the subtle ways that a given structure of state and productive relations functions:
- 1) to legitimate and perpetuate itself while it seeks to extend its power;
 - 2) to exclude systematically from the decision-making process affecting their lives particular groups defined along economic, racial or sexual lines;

3) to promote the political and moral illusion that science and technology, through professionals and experts, can 'solve' political problems; and so 4) to restrict public political argument, participation, and mobilization regarding a broad range of policy options and alternatives which are inconvenient to (incompatible with) the existing patterns of ownership, wealth and power [14, p. 277].

The method for achieving this analysis is by contrasting common sense communication (what Habermas [13] terms "universal pragmatics") with institutional communication. According to Habermas, normal communication involves a shared set of criteria, or claims to validity, which the actors use to assess the exchange [13]. These four criteria are:

1. clarity—the utterance must be clear and comprehensible.
2. truth—it must have a factual basis in external nature.
3. believability—it must be seen as truthful, suggesting a basis for authenticity and trustworthiness.
4. appropriateness—it must be agreeable with respect to a shared set of norms according to which it is the right way to interact.

Communication proceeds if these four validity claims are met. But, if one or more is not achieved, then the parties will eventually either break off communication, switch to a form of strategic action or argue in an attempt to resolve unsatisfied claims [13].

Against the backdrop of such normal communication, one can examine regulatory communication to see if it meets the four validity claims. Communication which fails to do so is accordingly distorted. Mueller has developed the concept of distorted communication, providing a succinct definition:

Distorted communication designates all forms of restricted and prejudiced communications that by their nature inhibit a full discussion of problems, issues, and ideas that have public relevance [8, p. 19].

Mueller further distinguishes between three types of distortion: directed, arrested and constrained communication. Directed communication involves the structuring of language and communication through government policy. Arrested communication makes reference to the restriction of speech codes in the linguistic environment of some groups and individuals which limits their capacity to engage in political communication. Finally, constrained communication involves the actions of private or government groups to seek their self interests by structuring and limiting public communication.

An analysis of distorted communication should help to distinguish between "hard" and "soft" regulatory approaches. One would expect a technocratic process to constrain communication, demand more than vernacular competencies, dictate meanings and otherwise negate the validity claims of normal communication.

Expert as Neutral

A second characteristic of hard regulation involves the embodiment of the myth of expert neutrality. This myth posits a view of the expert as objective, outside the personal or political biasing factors of the context, and thus capable of providing evidence which reflects documented competency unbiased by vested interests.

The most direct measure of expert influence involves the extent to which the decision makers (e.g., a hearing officer) adopt the experts' testimony as a factual basis for justifying the recommended decision.

Under what conditions will a decision maker have such influence? French and Raven's classic treatise on social power suggests that of the four validity claims in universal pragmatics, two are especially important in determining the potential influence of experts on a decision maker [15, p. 267]:

Whenever expert influence occurs it seems to be necessary both for P to think that O knows and for P to trust that O is telling the truth (rather than trying to deceive him).

Regarding the truth value the decision maker may have some technical expertise in the area of discussion by which to judge the expert's testimony. Absolute standards also may be used to test the expert [15]. Judgments of the expert's believability may hinge on how objective the expert appears to be. Showing the experts' biases is, thus, a means of discrediting them.

Experts do not derive their power solely from being competent and honest, however. They may derive legitimacy by holding a position or office; they may be a colleague or peer of the decision maker in some sense and thus gain referent power, and they may have some opportunity to reward or coerce the decision maker. These interacting bases of influence may serve to suggest that experts do not depend only upon expert power.

Studies of regulatory decision making suggest that the myth of expert neutrality is fallacious, albeit prevalent. Thus, rather than serving as an objective observer, the expert knowingly takes sides in a technical dispute. Mazur distinguishes between the "establishment" and the "challenger" roles in any controversy [16].

The establishment expert is usually protechnology, has a career tied to the success of the technology and views the technology as being in the public interest. In contrast, the challenge position speaks for the common man and is concerned that the establishment is imposing its will on the people and violating their rights and safety in order to increase the power of the elite. Within the existing regulatory process, conflict between experts adds to the distortion of communication because of the tactics used by experts to subtly bias their findings [16].

Reporting on the results of their international study of airport development, Feldman and Milch note of their review of 100 reports by consulting experts [10, p. 141]:

The influence of client interests on technical studies was evident throughout this inquiry. "Independent" land appraisers hired by government agencies seeking to expropriate land produced lower estimates of property values than "independent" appraisers selected by homeowners. These results did not require explicit instructions from clients. When the buyer paid for the estimate, the price declined; when the seller commissioned the appraisal, the reverse was true. There was no genuinely independent assessments of land values.

Bias can be partially attributed to the client's selection of a compatible expert both because the client frames their contract so as to get what they want and because the consultant is financially dependent upon the client [10]. Thus, in the evaluation of one hundred cases mentioned above, only one consultant proved to be other than a "hired gun" [10]. The resulting influence may appear in the collection, presentation and interpretation of pertinent data [12]. Furthermore, expert testimony frequently confuses "facts" and "values" and fails to expose basic underlying assumptions [16]. One result of this is that, rather than establishing facts, experts may help to obscure areas of agreement which might have otherwise served as a basis for compromise [10], confusing policy makers and the public [16]. The determination of risk is a prime example of the confusion of value and fact.

Determining Risk

Beyond the questions of distortion of communication and differential influence is the vital issue of what significance is accorded to various facts. Having established that ground water is polluted, for example, one must next establish the significance of the pollution. Differing risk criteria can lead to varied responses to commonly accepted facts. As indicated above, risk bias is key to differentiating the democratic and technocratic paradigms of regulation. The question of risk is, therefore, often central to disagreement between citizens (and their advocates) and technocrats (whether regulators or representatives of project applicants).

Observation of the interpretive biases of establishment experts and challengers readily suggest the analogy of Type I and Type II error in statistics [17, p. 113; 18]. Simply, to a scientist, a Type I error is "an error of rashness," where one concludes that an effect occurred when in fact it did not. Conversely, a Type II error is "an error of caution," where one disregards a real effect [19, pp. 204-205]. Scientists heavily bias the odds against a Type I error (and thus favor Type II error) because the norms of science guard against spurious conclusions that may erroneously support theory. According to these norms, if a theory is truly predictive, then it should be able to survive a stringent test.

Regulators, as technocrats themselves, normally adopt these scientific norms for determining significance. However, the prior discussion of technological bias suggests that there is more than merely scientific purity at work here. For example, the Thomas Commission at Love Canal appeared to be strongly political in its findings [17]. From the standpoint of not blocking technological innovation or diffusion (or the resulting profit), a scientifically conservative stance is advantageous. Witness the environmental policy setting by the Reagan administration for a clear example of hiding behind scientific norms in making economically based judgments [20].

Furthermore, regulators are biased by a more immediate economic pressure, the implications of a determination of significant risk for resulting demands for costly action. Thus, at Love Canal, regulators interpreted risk in light of their concern over who would pay to remedy a hazardous situation [17, 21].

In contrast to the establishment experts, challengers are likely to see risk differently, essentially reversing the weight of Type I and Type II errors. Now it is caution not rashness to respond to the slightest indication of potential risk. Most potential victims prefer risking a Type I error (i.e., evacuating the neighborhood with the discovery of even a weak indication of risk) to the inherent unresponsiveness of the Type II error model.

As we have discussed, the differing views about risk reflect different normative frameworks (definitions of appropriateness) and differing perceptions of truth and the legitimacy to predict truth (based upon expertise). Additionally, the question of "significance" often introduces unclarity into regulator/citizen communication and thus leads to a mutual loss of perceived trustfulness between regulators and citizens [16-18].

It is interesting to note that regulatory definition of risk, in contrast to vernacular definitions, may evoke a further distinction between absolute and relative risk. Thus, unlike a citizen exposed to PCBs and thus concerned with resulting health effects, the regulator is more likely to weigh the relative risks of different health threats in judging PCB exposure. Thus, the risk of death due to consuming .16 ug/l PCBs in drinking water is estimated to be $.1 \times 10^{-5}$. The risk of death due to a motor vehicle accident is a contrastingly whopping 1750×10^{-5} . The risk for death by respiratory cancer for someone smoking one pack of cigarettes per day is an even more dramatic 4×10^{-2} ! In one sense, a public health officer can hardly be blamed for seeing smoking or driving as greater public threats than is consumption of PCBs in drinking water. However, in a specific context, such comparisons are distorting. The involuntary, unnatural and intrusive, unknown and unseen aspects of believing that you and your family have consumed poisoned water are unlikely to make the victim appreciative of statistically weighted risk [17, 18, 22].

Implicit in the above point is the problem of unknowns in expert judgment of risk. Victims want answers that may be elusive; to attempt an answer or not illustrates the kind of "regulatory bind" that arises in such instances. Not only

must types of error be weighed but perceptions of authenticity are also in the balance [17]. To guess at an answer may be rash, to hold back cautious; but at some point the technocrat is expected to know how to proceed. Thus, communicative distortion, belief in the myth of expert neutrality and a tendency to make conservation risk judgments all are facets of one process—the technocratic paradigm of regulation. What are the implications of this paradigm?

THE CONSEQUENCES OF HARD REGULATION—A DISABLED CITIZENRY

For the citizen faced with the distorted communication of a technocratic process, the experience is, “. . . immobilizing, depoliticizing and subtly but effectively disabling . . .” [14, p. 276]. Planners, for example, disable through distortion when their bureaucratic language contributes to a lack of clarity and trust or when, by making problems appear to be too complex and technical, they contribute to passivity, dependence and ignorance [14].

The elevation of the professional to the role of expert is key to understanding the manner in which citizens are disabled [23, 24]. Using this as a focal point, it can be seen that the professionalization of environmental decision making parallels other areas of professional control [23, 24]. Regulatory specialists (lawyers, engineers and “hard” scientists) define the criteria for decision making. Reflecting their technical knowledge, these criteria change the basis for decision from social/political discourse to the more “rational” level of technical problem solving [2].

Laws and regulations create dependency as citizens are forced to rely upon those with technical competency to address “legitimate” criteria. The citizen now requires their own lawyer to represent them (since they are not competent to do this themselves) and their own experts to legitimize their concerns (after all, only an engineer can say whether a landfill will release leachate and only a hydrologist can predict in which direction leachate will migrate). It is not just that decisions are based on considerations that exceed the general level of understanding, but the technical expert has now set the terms for how people are to think about this aspect of their lives [24].

The result is that regulations make engineers (and other technical experts) the sole evaluators of technical projects. Waste, having been defined as a problem, is not put under the control of those who help generate it and are impacted by its treatment. Instead, waste now belongs to the engineers, the specialists who address this kind of problem. Criteria for the desirability of a facility are shifted from an analysis of the social impacts to the technical attributes of the design. Thus, in reflecting upon a sanitary landfill permit approved by NYDEC (New York State Department of Environmental Conservation), this author concluded that the issue had been whether or not it was a “well-designed” landfill, not whether it was a “good” landfill [25].

Those lacking in comparable expertise are systematically removed from the decision making process either because they lack the ability to discourse in technical language or because they lack the credentials to gain recognition for what they want to say. The citizen is thereby disabled as a participant in public decision making, and all aspects of the regulatory process reinforce this.

Ironically, while the citizen's direct observation ceases to be considered as evidence, the expert's opinion (often mere hearsay) is recognized as fact [23]. The irony stems from the frequent spatial and longitudinal proximity of the citizens to the project; they are the ones being most impacted by the action under consideration! But in the face of a project defined as being in the public interest, citizen's concerns are relegated to those of a special interest group. Within limits that are themselves disabling they are free to express their views. However, any control that they might seek to claim over decisions has been made illegitimate [10, p. 184]. In reaction to the process, it is no wonder that local community groups come to resemble what Nelkin terms a "mini-nationalism," seeking to protect themselves from the intruding technology [11, p. 279; 12, p. 144].

With this theoretical framework in place, a review of the regulatory process in action can provide a further elaboration of the disabling effect. As with other studies in this area [10, 12], the examination of a case study should provide a microcosmic view of the theory just suggested.

THE CITIZEN IN THE REGULATORY PROCESS

In 1979 and 1980, the author attended two lengthy regulatory proceedings, subsequently reviewing transcripts. The examples presented here derive largely from the "Merion Blue Grass Sod Farm" case. (For more details on the second case, "A1 Turi Landfill, Inc.," see [18, 25].

In 1979, farmers in the town of Waywayanda, New York became aware of heavy truck traffic into a sod farm at the edge of the fertile "black dirt" or mucklands region, a major vegetable growing area. The foul odors emanating from the site raised further questions, leading town officials to question NYDEC. It developed that that agency had granted a temporary operating permit to Nutrient Uptake, Inc. to spread sewage and septic wastes at Merion Blue Grass Sod Farms. Despite the questions that should have been raised in a review under the New York State Environmental Quality Review Act (SEQR), NYDEC granted a "negative declaration" which indicated that no harmful impact to the environment would accrue from the project. As a result, no environmental impact statement had been required, and the temporary permit had not triggered notification of the town nor any attempt at citizen involvement. However, as the temporary permit ran out, NYDEC arranged for an adjudicatory hearing to review the application for a long-term permit. Citizens and communities could be parties to the hearings. The hearings ran

through the summer and into the fall of 1979. After consideration of the hearing record, the commissioner of the NYDEC subsequently granted Merion Blue Grass Sod Farm a permit to construct and operate the proposed facility.

Illustrative of the difficulties encountered by the inexperienced citizen confronting this regulatory process is this excerpt from the Merion Blue Grass hearing record (June 27, 1979, pp. 98-99). The scene of the hearing was the Waywayanda Town Hall. The hearing officer sat front and center facing the audience, the stenographer by his side. Also in the front was an expert witness for the sod farm, a planner. Facing the hearing officer in a semi-circle were lawyers and experts clustered into groups representing the sod farm, two towns, the local citizens and the NYDEC. The excerpt is condensed at several points. It involves a farmer who emerged from the audience with a request.

Farmer: Your honor, may I ask a question? I have to go home on the farm and work.

The hearing officer checks with all the lawyers to see if the farmer may proceed.

Farmer: You have to excuse me. I am no attorney. My language is probably not proper.

H. Officer: Just a minute. Could we have your name for the record?

Farmer: My name is _____ and I reside right on this map where he (referring to the planner) has here this house; this one right here.

The hearing officer asks the planner how far from the site the farmer's house is. The farmer mimics the same question.

Planner: Three-quarters to one mile.

The hearing officer asks the farmer if he wants to have sworn testimony. When the farmer answers "yes," he cautions with, "This means you will be cross-examined," to which the farmer agreed. When he is sworn in, the farmer proceeds to ask the planner why he cannot smell the sludge at a close distance (as he had testified) when he (the farmer) could smell it at one mile.

H. Officer: Mr. _____, this is your statement! Mr. _____ (the planner) is no longer on the stand. We want to know exactly what you think.

Farmer: (to the planner) What would the consequences be when the news media publicizes . . . that our vegetables are growing in this.

H. Officer: Once again, you are not asking questions!

Farmer: How can I ask this question?

H. Officer: I thought you would just like to make a statement.

Farmer: No, I want to ask this question.

H. Officer: Oh.

Farmer: I want to ask these questions.

H. Officer: I thought . . .

Farmer: No. No. I want to ask these questions.

H. Officer: That's entirely different. You are going to cross-examine!

Farmer: What will the consequences be when the news media publishers the environmental impact on our vegetables? As a planner, what would happen to millions of dollars of lettuce and everything, and what's going to happen when they have a little jingle on the television—"Orange County sod is growing on human waste; you got to buy Jersey sod commercially fertilized!" Whose sod would you buy?

Planner: Which ever looks better and is the best price.

Farmer: As a consumer, what would you buy?

Planner: Which ever looks better and is the best price.

We next pick up questioning regarding flooding at the site.

Farmer: Since 1963 that ground has been under six feet of water.

Sod Lawyer: Objection. The questioner is testifying.

Farmer: Right. I don't know. You have to excuse me. I am not an attorney. I don't know. The guy up there is going to read this will say, "Hell, he's just a farmer."

The farmer then proceeds to testify that the site has been under water five times since 1963 because of flooding from the adjacent Wallkill River.

H. Officer: Mr. _____, I am quite sure the town attorney will bring that out.

Farmer: I don't know.

H. Officer: His engineer will present field conditions of the Wallkill. What we want you to do is to direct questions, just questions!

A little later . . .

Farmer: What happens if there is six inches of rain and it goes over the berm?

Planner: I don't know the elevation, but I assume it's a couple feet.

Farmer: You are going to grow sod? You won't be able to grow sod on it. The ground is going to be another Niagara, another Love Canal, that's all!

Audience: Cesspool!

Farmer: If Merion Blue Grass gets an approval, how many—as a planner, how many more people will want to plant this site? What will our locale be known as? Look, you said there are sods around here. This guy's making money. I might as well get on the gravy train.

The farmer next asks about the comparative cost of fertilizer and sludge. When the planner indicates that he doesn't know, the farmer inquires whether an Environmental Impact Statement is required. The hearing officer misunderstands the question which is clarified by the sod farm lawyer. The hearing officer then proceeds to explain that there is a negative declaration.

H. Officer: There will be no impact of this project, so there will be no impact statement.

Farmer: It's such a small operation now, what will happen when it gets larger? Waste is running down the river now!

Sod Lawyer: I don't like to be overtechnical. I feel the questioner is testifying again.

Farmer: You can object because I don't know. I am honest.

Later the farmer asks about the financial gain in sludge dumping as compared to sod sale.

Planner: As a planner, I didn't investigate that.

Farmer: I am just a farmer. You are supposed to know. I am just a farmer. You got degrees!

Sod Lawyer: He's badgering the witness.

Farmer: I don't care. He's got degrees. He's the planner.

And, finally . . .

Farmer: If you want to ask me questions, go ahead (to the planner).

H. Officer: I don't understand. You have no right to be cross-examined unless you testify. You did not testify!

Sod Lawyer: He didn't?

Analysis of the Hearing

Using the framework developed above, it is possible to analyze the hearing process in terms of communication (universal pragmatics and distortion), reliance upon expertise and assessment of risk.

Communication

As a communicational process, an examination of clarity, authenticity, truth and appropriateness can provide a basis for determining whether distorted communication occurred and how it was manifested.

Clarity – Experts in the sod farm hearings tended to give clear presentations, the major confusion coming instead from the hearing officer, who did not always make his hearing policy clear, and from the lawyers, who tended to operate according to court procedure. In the Turi Landfill hearing, the hearing officer was clear and helped to rein in the lawyers. However, some of the hydrological testimony was complex and abstract.

Jargon was the source of some unclarity during the Sod Farm hearings. This was seen in the response to the town's claim that a "health emergency" existed at the site. The use of this term triggered the NYDEC to halt the hearings and to call in the Department of Health for verification. After their examination, the Department of Health concluded that a "health nuisance" rather than a "health emergency" existed. The hearings were then allowed to proceed by NYDEC because a nuisance, unlike an emergency, did not challenge the NYDEC's jurisdiction in evaluating the permit application.

Authenticity – A number of factors contributed to potential distrust of the NYDEC by citizens:

- a. The sludge operation had been initially permitted without the town being informed.
- b. The DEC had decided that the operation would cause no environmental harm before they had carefully examined the issue. They clearly supported the project, arguing for a "regional need."
- c. The hearing officer was from the same agency as the NYDEC staff who vocalized this support. Furthermore, he was not consistent in his rulings.
- d. The existing operation that the NYDEC had permitted was excluded from the proceedings because the hearings dealt with the "proposed" operation, not the current one.
- e. The NYDEC periodically indicated that it would monitor the site; at other times NYDEC staff complained of their understaffing.

Similar issues occurred with the Turi Landfill case; in both instances, citizens perceived that the approvals were a foregone conclusion.

Truth – Were the hearings able to get at a fundamental set of facts necessary for the evaluation of the project? A number of factors hampered the search for truth:

- a. Disagreement occurred between respective experts on the challenge and establishment sides.

- b. The establishment experts directed their comments toward a proposed project, while challengers concentrated on the existing operation.
- c. The hearing was premised on a negative declaration, which absolved the applicant from doing an Environmental Impact Statement because no environmental damage was expected. Thus, certain questions were avoided.
- d. The Department of Agriculture in New York State subsequently issued recommendations that sludge not be used on food crops, which opposed NYDEC policy.
- e. Experts for the applicant were not consistent; several different engineers presented different plans in successive sessions.

Appropriateness – Also lacking was a shared definition of appropriateness.

- a. While the state focused on the projected technical performance of a proposed facility, the locals cited negative impacts of the existing operation (such as odor), the trustworthiness of the operator and the possibilities of illegal dumping, all of which were irrelevant to the state, not being specifically listed as criteria in the regulations.
- b. During the course of the hearing, citizens were reminded to keep their decorum in the hall and to pass their comments through their lawyer.
- c. At one point, moved by their frustration, some farmers blocked access to the sod farm using their agricultural equipment. From the standpoint of legal authorities, this was clearly not an appropriate action, yet from the citizens' perspective, it may have been an appropriate response to their frustration at the distortion inherent in the process.

Having briefly reviewed the basis for such distortion in the violation of the validity claims for full communication, the actual forms of distortion will be reviewed according to the categories of constrained, directed and arrested communication.

Constrained communication – The hearings constrained communication in several ways:

- a. The logistics of participation—The audience at the sod farm hearings consisted largely of farmers who attended at the expense of losing prime mid-summer work days. As a result, there was fluctuation in attendees. A given farmer might only be able to be present for a segment of the hearing. But because expert witnesses have narrow specialties and are thus limited in their contribution to a factual record, there is no one time in the hearing that a questioner can get all of their desired answers. They must be available to question each witness on their area of knowledge at the appropriate time, normally after the contesting lawyers have finished their examinations. This creates a constraint on citizen participants who have other demands in their lives.

- b. Technical rationality—The rationality of the process was inherently technical. This was evidenced by the NYDEC’s reliance upon Part 360 of the New York State Environmental Conservation Law in preference to the other relevant statute, the State Environmental Quality Review Act (SEQR). Part 360 provides technical requirements for solid waste facilities, suggesting what amounts to a technical checklist for approving a project. SEQR involves a much more complex and multifaceted review, requiring the balancing of social, economic and environmental factors in a way mirroring the National Environmental Policy Act. As a basis for review, Part 360 is a cut-and-dry formulation which would lead to rejecting the application only in situations where no mitigation of concerns was possible. In favoring it over SEQR, NYDEC made certain the eventual approval of the site, avoiding the more comprehensive questions which might have arisen under SEQR and thus jeopardized approval.

In the A1 Turi Landfill Inc. case, where a positive declaration forced an Environmental Impact Statement to be prepared, the bias toward Part 360 was also apparent. NYDEC officials confirmed their emphasis on Part 360 and deemphasis of SEQR after the author presented testimony on the subject before the New York State Assembly (Edelstein, 1983).

- c. Experts favored—Given the preponderance of technical considerations, the adjudicatory format legitimized technical experts. It also gave a crucial role to lawyers because of the quasi-legal nature of the proceedings. The hearing officer (an administrative law judge with NYDEC), who had a technical rather than a legal background, had to contend with the competitive maneuvering of five attorneys, each representing a different party to the case. He had to continually remind them that this was not truly a court of law.

At the same time, a room full of local citizens often frustrated by formal procedures presented the judge with periodic challenges to the decorum of the hearing. He had to continually remind them that the hearings were much like a court of law, encouraging them to intervene through their attorney, despite the fact that many of the attending citizens were listed as parties to the proceedings.

In these and other ways, the hearing process was seen to constrain communication. An inherent bias in favor of the permit applicant was evidenced in ways that frustrated the attempts of local citizens to represent their interests.

Directed communication – Overlapping somewhat with the constraining elements were aspects of the situation dictated by the NYDEC.

- a. Citizens were confronted with a negative declaration and a virtual *fait accompli*.
- b. Citizens were bucking an ill-defined key criterion also seen in the Turi case—“regional need.”

- c. The town and its citizens were forced into a long and drawn out, complex and expensive process from which they had virtually no chance of benefiting. The NYDEC (using state laws and codes) dictated the terms of the engagement. Thus, the exclusion of the existing site and the reliance on Part 360 criteria governed the hearing. The result was that the applicant, focusing upon a proposed facility rather than an existing one, could mitigate any criticisms on the technical criteria by merely having their engineers alter the plans. Thus, they were able to address the concerns of the community and the NYDEC, at least on paper, in a manner which never called into question the desirability of the project, only its detailed design.

While the town later tried other channels to block the facility (the courts, the media, local legislation and political pressure), there was no means to stop it. After several years, when repeated ongoing violations led to additional hearings, the NYDEC has been finally forced to shut the facility.

Arrested communication – Although not explicitly in the sense used by Muller [8], arrested communication was evident in the hearings as well:

- a. The technocratic process was foreign to local people. Because the language of participation was not part of the vernacular, locals were forced to rely heavily upon their lawyers. That a more skillful hearing officer can help to assure clarity of presentation was shown at the A1 Turi Landfill, Inc. hearings, where additionally a more educated and sophisticated group of citizens was attracted to give substantive testimony.
- b. Regarding the outcome in both towns, it should be noted that a general paucity of information existed at that time regarding the use of environmental law to protect community interests in a NYDEC hearing. Thus, even most of the lawyers could be said to have lacked the language tools needed to participate effectively, relying on tactics more appropriate to civil law in their presentations.

In summary, the hearing process revealed communication distorted in numerous ways. In looking to the relative role of experts in the process, it can be seen that these dynamics were disabling to citizens.

Expertise

As illustrated in the hearing excerpt reprinted above, the question of expertise is central to understanding the hearing process. This can be further illustrated by referring to specifics of the hearings.

Expert distancing – Experts can be largely distanced from the consequences of a facility in a way that local citizens obviously cannot be. This is illustrated by the reaction of an engineer from Boston who had flown in to testify at the Sod Farm hearings. He had barely visited the site, but he was adept at addressing

universal questions about sludge use and recommending universal solutions for facility design problems. This expert was shocked and offended by the opposition from local farmers. He viewed himself as an environmentalist aiding the NYDEC in creating a facility which would reduce regional water pollution while recycling a valuable resource. The citizens' position was, in his view, clearly a sign of their ignorance.

Clearly, the issues for nearby citizens were quite different than those concerning an expert who had flown in just that morning. He was the classic establishment expert. He believed in the technology that he was advocating; for him it was a technological fix for a social problem. Differing perceptions of the site and technology made communication between this expert and citizens extremely difficult.

“Local” expertise – Communication was not aided by the fact that local citizens were farmers. They not only knew the area well, but they understood questions related to farming (including sod farming) and fertilizer application. Such local expertise was given little apparent weight in a procedure which relied so heavily upon technical expertise. Thus, the Boston engineer's expertise on sod was accepted on an issue where he was challenged by local farmers. And, when the same engineer pointed to a map in order to show the location of a proposed sludge storage lagoon, he was not discredited when a farmer in the audience asserted in shock that the spot indicated was his house, “that's my house; they're going to put a sludge lagoon on my house!”

The use of local expertise was discouraged initially by the virtual gauntlet which needed to be run in order to testify. This dissuaded less determined participants than the farmer cited above. That farmer further illustrated the problem of testifying in an expert forum. He was clearly aware of his lack of expert status as he proceeded to interact with the planner.

And, yet, the farmer revealed an ability to ask perceptive questions many of which were never adequately addressed in the hearing. He raised major local issues involving the impacts of the overpowering odors on farmers living and working close to the sod farm, the dangers to the Black Dirt agricultural industry due to physical contamination and social stigma, the comparative economics of farming versus dumping (which heavily favor the latter), the flooding at the site known to “local experts” and the avoidance of an environmental impact statement. Thus, a middle-aged farmer in his field clothes could cut to the heart of the matter, something that all the lawyers and experts would take weeks to avoid. Despite his acuity, however, the farmer's testimony had little influence on the proceeding.

Demystification – For the citizens, the process was gradually diminished by the inability of some witnesses to answer key questions, the inconsistency

between pieces of testimony and “local expertise” and the related knowledge that an expert might know less about a topic than they did. Citizens appeared to find the expert testimony for the establishment side to be generally suspect. It is hard to discern whether the farmer quoted was speaking in deference or deprecation as he addressed the planner and hearing officer.

To assure that such social impacts would be considered during the subsequent A1 Turi Landfill, Inc. hearing, the author prepared expert testimony based upon an interview study of the concerns of citizens proximate to the landfill [26]. Several outcomes of this experience are of interest here.

First, the data on social impacts were not factored into the hearing officers’ decision. They were treated in a brief paragraph in the hearing report, but were in no way weighed with the technical issues of concern. Secondly, the testimony was treated as hearsay by the hearing officer even though experts presenting technical data were not so challenged. Similarly, the qualitative data presented were contested by the lawyer for NYDEC who included in his cross-examination this request:

Could we have some kind of numbers as part of this response? Some kind of quantification like actual results on IBM paper or however the responses were taken down?

By this view, valid data were quantified data, particularly if they had been run through a computer. Judgments from technical experts were not subjected to the same pressures for quantification.

Finally, the author dutifully reported his bias regarding the landfill expansion, noting the steps taken to prevent that bias from distorting the research outcomes. This invited strong attacks on his objectivity. Yet, no one thought to similarly question the neutrality of highly paid expert engineers and scientists who presented their “facts” with no disclaimers.

Risk

Assessment of risk was a fundamental issue in the citizen/regulator communication at the Sod Farm hearing. As illustrated in the dialogue, concern was raised over the potential for flooding by the adjacent Wallkill River over the berms of the lagoon, the poisoning of the sod farm because of accumulation of heavy metals in the soil, contamination of nearby food crops, health dangers for nearby farm workers, and the potential for vectors to spread disease from the site. The NYDEC principally ignored these issues. Additionally, concerns over the reliability of the facility operators, reinforced by reports of toxic dumping at the site, were ignored. Haphazard inspection and monitoring of the site occurred until 1983, when a NYDEC employee was stationed at the

facility on a daily basis. This officer was later charged with falsifying his time sheets to cover up visits to a nearby tavern.

In short, the various issues that citizens raised because of their concern about risks due to the project were not seen by the regulator as being sufficiently serious to warrant consideration. As noted above, major strategic moves by the town's lawyer and health officer to declare a health emergency died when the state health department did not perceive there to be any imminent health risk at the site.

Some irony existed in the citizen's opposition to the facility. Thus, local farmers regularly use manure from farm animals on their fields. The psychological issue here was not with excrement, *per se*, but with a collective revulsion to *human* waste. Adding to the irony, one farmer who made an eloquent statement about the risks of human waste was dressed in the outfit he had used to spray pesticides on his crops earlier in the day. Suggested was the unacceptability of the project's risks to the farmers; that they accepted other comparable risks and conditions as being appropriate was also evident.

In the Turi Landfill case, questions of risk surrounded the known pollution of a major aquifer by leachate draining from the existing landfill. These questions were not completely addressed in the approval of a new landfill site by the NYDEC and are still not resolved some six years later. Extensive concern by landfill neighbors over water quality persists.

Summary

The dynamics by which citizens become disabled through regulatory procedures span the indices examined. In Waywayanda, regulatory communication was invalidated on all four norms of universal pragmatics. All three types of distorted communication were evidenced, although constrained and directed communication were most predominant. Dependence on technical expertise was necessitated by the evidentiary rules of the quasi-legal proceedings. Citizens were able to participate to the extent that they might voice their concerns about risks associated with the project, but only concerns that corresponded to technical criteria were thoroughly explored. Health risks as well as threats to lifestyle were not recognized except to the extent that they would be mitigated by the proposed facility plans. Existing risk due to existing facilities was largely ignored.

Research by the author with victims of toxic exposure tends to show a comparable regulatory experience. While this will be discussed elsewhere in detail, it is interesting to note that, in the cases studied, the polluting facilities had rarely been operating according to their original proposals, nor had they been regulated according to regulatory promises. Once toxic exposure occurred, regulatory agencies consistently erred on the side of caution and not accepting responsibility. Their communication patterns reveal systematic distortion and a violation of validity criteria. Exposed residents have become further dependent

upon experts to establish the basis for damage suits. A loss of personal control as well as a fundamental loss of trust in government and in others generally is a persistent outcome of such experience [17, 18].

SIA AND COMMUNITY REGULATORY COMMUNICATIONS

At the onset of this article, a distinction was made between the social impacts of a project and the social impacts of the process by which a decision is made about the project. The argument was made that such procedures tend to be technocratic in nature, involving distorted communication which is disabling to citizens. This suggests a dilemma for the social impact assessor.

When social impacts of a project need to be entered into the record of a hearing where the format prevents real participation, the social impact assessor can take on the role of expert, studying possible impacts and providing expert testimony. However, this approach does not inherently deal with the disabling impacts of the regulatory proceedings; the citizen is still dependent upon expert assistance. The fundamental bias of the regulatory system remains. In fact, the citizen is now dependent upon a new kind of expert assistance which expands their loss of control into a new realm—the articulation and legitimization of citizen concerns and perceptions. Thus, in presenting social impacts of the project, the social impact assessor may be contributing to the deleterious impacts of the process. In this case, SIA becomes just another technical specialization. Particularly when representing an establishment position, but even taking the challenger side, within the technocratic process the assessor can hardly help contributing to the manipulation of community interests. Is there a role for the SIA practitioner that addresses this dilemma?

In recognizing the larger dynamics of regulatory procedures, the SIA practitioner has the possibility of acting outside of the distorted communication process in order to correct it. This involves several steps which may constitute separate roles or fit together as a basis for SIA practice. These steps are:

1. To provide ongoing feedback and criticism to regulators about the nature of technocratic distortion, essentially to reeducate the regulator to communicate fully. Forester argues that distorted communication can be corrected [14]. He provides a list of alternative strategies for planners to use when interacting with citizens to address this issue. Clearly, Forester's approach has value when regulators understand their communicational process, recognize that they are complicit in distortion, want to alter the situation and have the leeway to experiment with alternatives. However, regulators within a technocratic paradigm are often constrained themselves. Additionally, the psychological pressures engendered by citizen conflict and feelings of being misunderstood may block the regulator from opening up the communicational process.

Furthermore, the minimalistic and unimaginative forms which citizen participation takes in regulatory procedures has created expectations for participants as well as regulators. Variations from the norm can thus be risky. A recent attempt by NYDEC to use brainstorming workshops to discuss proposed procedures regarding sludge spreading backfired when participants felt that the procedure was contrived and manipulative. They had expected to have their customary five minutes to stake a position regarding the proposals. When they were forced into consensus-seeking groups, they became quite disgruntled. The point is that to change the behavior of a few regulators experimenting within an otherwise technocratic structure does not set the stage for broader change. Also, the procedure by which the above experiment was implemented was as arbitrary as is the dictation of formal hearings.

2. To act as advocate to citizens not so much regarding the content of regulatory actions as regarding the process itself. By orienting citizens to the metacommunication level of proceedings, they can come to understand the distorting and disabling elements which confront them. This frees the citizens to confront issues and develop strategic actions without becoming blocked and disabled. Thus, advocacy need not imply taking sides *vis-a-vis* a project, but rather acting to obviate the debilitating effects of the regulatory process itself.
3. To seek to enable citizens to make clear the social impacts related to a project. Because the citizen/community perspective is the one most likely to be shut out of the decision, it is important to articulate community concerns, testing and verifying them in a professional yet accessible way and helping to assure their presentation within and without the regulatory process. The SIA professional acts to guide and educate, to collect data *with* and to collaborate in interpreting it. The role played by Dr. Beverly Paigen at Love Canal suggests one possible model for this endeavor [17]. Essentially, the advocate professional attempts to meet as many needs as possible which are not being met by the distorted regulatory procedures. Thus, questions of clarity, trust and acceptability are addressed. Citizen expertise is encouraged. Regulators are confronted on the issue of risk. The approach is inherently an interdisciplinary one, relying on the cooperation of lawyers and technical advocates with the SIA practitioner. And, finally, the question of bias is put on the table. Rather than allowing experts to assume objectivity while citizens are labeled as subjective, the social impact assessor can focus on clarifying all positions and on seeking the basis in truth required of good regulatory communication and understanding. A promising approach may be Mazur's science court procedure whereby an attempt is made to separate fact and value in expert's positions, clarifying real conflicts and reducing them to testable propositions [16].

4. Finally, the SIA practitioner seeks to act as a critic of emerging technologies, confronting the inherent bias of technology. The advocacy of a critical review of technical projects serves a dual function. It helps to enable communities, on the one hand; it also provides for the assessment of technical impacts through the creation of technical controversy which raises questions necessary to reestablish some social control over technical innovation [16].

SUMMARY AND CONCLUSION

This article has argued that current regulatory procedures are disabling to citizens, that the dynamics of this disabling effect are visible in the communication practices of regulators and that social impact assessors can help address the problem, not by playing conventional expert roles, but by innovating around the necessity of opening up distorted communication and enabling citizens. A benefit of this approach is the potential for checking technological growth by the creation of controversy over factual questions whose resolution would provide for a less distorted evaluation than occurs through current regulatory procedures.

ACKNOWLEDGMENT

The assistance of Peter Melser, Ph.D. in editing this article is greatly appreciated.

REFERENCES

1. J. McDermott, *Technology: The Opiate of the Intellectuals*, in *Technology and Man's Future*, 3rd edition, A. Teich (ed.), St. Martins Press, New York, pp. 130-163, 1981.
2. J. Habermas, *Toward a Rational Society*, Beacon Press, Boston, 1970.
3. L. Mumford, *The Pentagon of Power*, Harcourt Brace Jovanovich, Inc., New York, 1970.
4. ———, *Authoritarian and Democratic Technics*, in *Technology and Culture*, M. Kranzberg and W. Davenport (eds.), Schocken Books, New York, pp. 22-40, 1972.
5. A. Lovins, *Soft Energy Paths*, Friends of the Earth, San Francisco, 1977.
6. J. Kameron (ed.), *The Social Dimensions of Energy Options*, Proceedings of conference held at Ramapo College of New Jersey, March 31-April 1, 1979.
7. K. Polanyi, *The Great Transformation*, Beacon Press, Boston, 1974.
8. C. Mueller, *The Politics of Communication*, Oxford Press, New York, 1973.
9. D. Dickson, *Limiting Democracy: Technocrats and the Liberal State*, *Democracy*, 1:1, pp. 61-79, January, 1981.
10. E. Feldman and J. Milch, *Technocracy Versus Democracy, The Comparative Politics of International Airports*, Auburn House Publishing Company, Boston, 1982.

11. D. Nelkin, Science and Technology Policy and the Democratic Process, in *Technology and Man's Future*, A. Teich (ed.), St. Martins Press, New York, pp. 270-293, 1981.
12. ———, *Jetport: The Boston Airport Controversy*, Transaction Books, New Brunswick, New Jersey, 1974.
13. J. Habermas, *Communication and the Evolution of Society*, Beacon Press, Boston, 1979.
14. J. Forrester, Critical Theory and Planning Practice, *APA Journal*, pp. 275-286, July 1980.
15. J. French and B. Raven, The Bases of Social Power, in *Group Dynamics: Research and Theory*, D. Cartwright and A. Zander (eds.), Harper and Row Publishers, New York, pp. 259-269, 1968.
16. A. Mazur, *The Dynamics of Technical Controversy*, Communications Press, Washington, D.C., 1981.
17. A. Levine, *Love Canal: Science, Politics and People*, Lexington Books, Boston, 1982.
18. M. R. Edelstein, The Social and Psychological Impacts of Groundwater Contamination of the Legler Section of Jackson, New Jersey, report prepared for law firm, Kreindler and Kriendler, 1982.
19. W. Scott and M. Wertheimer, *Introduction to Psychological Research*, John Wiley and Sons, New York, 1962.
20. E. Marshall, EPA's High Risk Carcinogenic Policy, *Science*, 218, pp. 975-978, December 3, 1982.
21. L. M. Gibbs, *Love Canal: My Story*, State University of New York Press, Albany, New York, 1982.
22. N. Kim and D. Stone, *Organic Chemicals and Drinking Water*, Publication of New York State Department of Health, 1980.
23. I. Illich, Disabling Professions, in *Disabling Professions*, I. Illich, I. Zola, J. McKnight, J. Caplan, and H. Shaiken (eds.), Marion Boyars, London, 1977.
24. I. Zola, Healthism and Disabling Medicalization, in *Disabling Professions*, I. Illich, I. Zola, J. McKnight, J. Caplan, and H. Shaiken (eds.), Marion Boyars, London, 1977.
25. M. R. Edelstein, The Social Impacts of A1 Turi Landfill, Inc., prepared on behalf of the town of Goshen, New York for hearings before the New York Department of Environmental Conservation, July, 1980.
26. ———, Assessing Social Impacts as Part of the SEQR Review of Environmental Impact Statements, paper presented at the conference, "New Economics; New Environment?," Saratoga Springs, New York, November 8, 1981.

Direct reprint requests to:

Michael R. Edelstein, Ph.D.
 Ramapo College of New Jersey
 Mahwah, NJ 07430