Techné: Research in Philosophy and Technology

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The Balance Between Expertise and Authority in Citizen Engagement About New Biotechnology

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Abstract

Academic-researcher-led public engagement and consultation on new biotechnology provides information about new biotechnology to the public, and solicits their attitudes, beliefs and understanding about the technology. A burden associated with the democratic ideals of transparency and accountability encourages researchers to provide accurate information to the public. Less recognized is their role as actual, or perceived, authorities to provide new knowledge and to make policy or regulatory decisions. This paper focuses on the first of these two – the conflation between expertise on the subject of the engagement and the authority to represent that subject in an engagement process. While expertise, or at least accuracy in portraying expert knowledge, is consistent with transparency and accountability, it is argued here that authority in the representation of expert knowledge may be inconsistent with the intent of public engagement and consultation.

Introduction

Controversy over genetically modified food has highlighted the public's need for improved communication regarding new agricultural biotechnology (Ruse and Castle 2002; Frewer, Howard, and Shepherd 1995). National citizen engagement exercises that assess citizen attitudes toward potential genetically modified foods are now an almost routine feature of new biotechnology introductions. The general intent of these exercises is to test the waters to evaluate, in advance of introducing a new technology, the potential public receptiveness. Knowledge about the level of acceptability is then often used as a means to develop appropriate communication strategies and to determine whether existing regulations adequately capture public concerns about the new technology. Engagement of the public on new biotechnology requires that a knowledge gap be overcome, since people can hardly be expected to give their views about a new technology if they have never heard of it. In the course of an engagement

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority... /2 exercise, there is a two-way flow of information to members of the public about the new technology, and from them to the individual(s) running the meeting, often an academic researcher, working in conjunction with government and industry.

The need for information delivery, however, raises serious methodological and substantive complexities about the dual role of the academic researcher as disinterested accumulator of information from the public versus their role as a transmitter of information to the public. To begin with, there is the problem about whom researchers may be perceived to represent, even if they claim disinterestedness, when they are providing information about biotechnology. Engagement about biotechnology takes place in an environment characterized by polarized and entrenched views. Researchers may believe that they are providing their knowledge and expertise as publicly-minded educators, but at the same time their credibility, and the success of their research, is dependent upon their ability to avoid being regarded as an authority over expert matters, one who has some kind of normative claim to this authority that would induce ordinary citizens to privilege their views. Can this balance be achieved?

This paper evaluates the possibility of balancing the transmission of information, data collection, and the potential for the perception of authority in conducting citizen engagement exercises using information communication technologies. It begins with considerations about why engagement exercises are undertaken, what they strive for, and the core features of public engagement. It then turns to a discussion about a novel methodology using new information communications technologies that was deployed to assess consumers' base-line acceptance, rejection, concerns, and need for information about new food biotechnology. Provision of information about the new biotechnology to the public is a necessary component of this study, and is greatly facilitated by the use of information communication technologies, but the study results leave open the possibility that the responses to new biotechnology might be conditioned by the fact that it is academic researchers who are providing the information. This raises an ineluctable problem about the balance between the objective of providing information as a disinterested, trustworthy expert to the public, and the potential for the information to be construed by members of the public as having come from an authority whose provision of information becomes construed as having weight above and beyond the content of the messages given to the public. Disinterested academic participation may be an impossibility, but this need not undermine the objectives of public engagement. In fact, the contrary is true:

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority.../3 trusted (if potentially authoritative) sources information are required to stimulate and sustain public involvement about the direction of science and technology development and its regulation in an open and democratic manner. There may be a need, however, to ultimately balance the epistemic demands of engagement and consultation against the need to responsibly monitor the creep of unanticipated authority.

Public Engagement and Consultation

Public engagement and consultation are responses to the problem of public disengagement from democratic processes, especially as it appears in low voter turnouts in democratic states (Putnam 2000). The problem of disengagement focuses on the fact that public association is problematic in democratic systems when the voluntary withdrawal from the institutions of democracies has systemwide, which is to say, other-affecting, consequences. This is quite unlike failing to show up to one's bridge club. Consequently, within the Organisation for Economic Cooperation and Development, as well as within civil society, recent interest in citizen participation in democratic institutions has grown. Included in this response is a drive toward having public input in specific decision making process faced by government, such as the development of policies and regulations for a wide variety of decision making processes, including those with respect to new biotechnology development and adoption.

In a recent paper (Castle and Culver 2006), we suggest that academics come to the problem of disengagement by providing researched accounts of the empirical trends and theoretical impact of disengagement, and by participating in measures to correct the problem. In the latter activity, academics work as consultants to government or industry, or carry out funded research. Researchers in this capacity function in different ways, ranging from action that simulates polling or, in other cases, market research, and sometimes their efforts have a more direct connection to policy making. Since researchers are recipients of funding, and governments act at a distance from the academic research community, their relationship is often characterized by reciprocal altruism which comes with few guarantees.

As we point out, there is a crucial difference between academics providing information and getting feedback from the public, and interactions with the public where the intent is not simply to take the public's temperature, but to explicitly gather information that will be used in the development and

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority... /4 implementation of policy. We argued that there is a crucial distinction between engagement and consultation, and this distinction can be used to understand the phenomenon of disengagement, as well as to understand the central differences between two different approaches to public participation in policy development.

Engagement of citizens by government or civil society or other groups is the 'push' of information to citizens, often involving the solicitation of views on issues related to the information provided. The chief objective in engagement exercises is to reliably convey information and to listen to views offered by citizens. Engagement is guided by the ideals of transparency and accountability, to which governments and participating academics are usually strongly committed. This commitment, however, should not be mistaken in the public's eye for being either willing or able to address perceived problems using public input. On the contrary, an effective engagement can involve the push of information to the public, thereby meeting an important epistemic requirement, without the views of the public being overtly connected to a decision step. Were there to be miscommunication about the limits of engagement, the public could be mislead into thinking that academic researchers have greater authority to convey information relevant to decisions to the public, and to return citizens' views to forums where this information is acted upon.

Were citizens aware that their responses to the information that they receive are explicitly connected to a policy formulation and implementation process, they would be involved in a public consultation. Public consultation, like engagement, involves the 'push' of information to citizens as well as the 'pull' of preferences from citizens. In our view, (Castle and Culver 2006), for a consultation to have taken place it is by definition necessary that citizens know that some actual decision is to be taken and that is why they are being consulted. Consultation thus creates binding obligations for those who consult, meaning that they not only have transparency and accountability conditions to meet, but they also have a broader role as authorities in a democratic process to take information forward to decision making processes that are respectful of the impact the decisions will have on citizen autonomy.

The central difference between engagement and consultation is that the latter has the potential for being explicitly democracy-enhancing if greater citizen participation clearly leads to decisions that will affect citizens' lives. Engagement has a democracy-enhancing role, but it has a lesser impact because its results are not explicitly tied to decision-making. What each shares in common is that those

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority... /5 conducting engagement and consultation "push" information about new biotechnology, for example, and therefore bear responsibility for the accuracy and transparency of that information. In the case of consultation, this epistemic condition is met with a responsibility for democratic use of responses to new information, which is a shared obligation between researchers and government officials. Elected officials use this authority to make decisions, and academics are their proxies in the public domain. In the case of engagement, academics are only mistakenly viewed as proxies for decision-makers, and are not themselves decision-makers. A difficulty arises since citizens participating in public engagement exercises understandably wish to reach beyond the provision of information to see how and when it will be used. So as citizen's expectations of academics can exceed their actual authority as decision makers, so too can engagement and consultations appear to be delivering not just transparent and accurate information, but information which has been legitimated by disinterested parties in the academy, and elected and hence authoritative decision-makers in government. To see how this problem can arise, it is worth briefly considering the details of a national public engagement exercise on agrifood biotechnology.

Engagement on Agri-Food Biotechnology

Agri-food biotechnology is often controversial, and while crop biotechnology has not generated the public outcry seen in Europe, the obvious differences between crop and animal biotechnology suggest that public controversy could attend any attempt to introduce genetically modified animals into the food system. For this reason, a public engagement study was launched in 2002 to engage citizens before the technology was approved by regulators and on its way to commercialization (Castle, Finlay and Clark 2003, 2004; 2005). In this public engagement exercise, 1365 Canadian citizens comprising a stratified demographic sample were professionally recruited in eight city centers in groups of 30. This study initiated public consultation about two proposed transgenic animal products, salmon and pork, and begins the task of identifying issues of significance for the public relating to transgenic animals and their introduction to the marketplace. Citizen reactions were gauged as they progressively became better informed about each of two potential new product concepts. A combined open- and closed-ended methodology was used to identify consumer reactions on an unencumbered basis to animal concepts revealing progressively more details concerning the benefits and risks of the two technologies to consumers. Qualitative data were collected using booklets, in which citizens wrote answers

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority.../6 to open-ended questions, later transcribed to text. Quantitative data were collected using individual wireless handheld units and Resolver Ballot software.

Information interventions were chosen which provided consumers with levels perceived understandable, while not overly-taxing in terms of information load. Experts involved in the development of the technologies were consulted regarding product descriptions and known risks and benefits to be included in the information sets. The first information set described the technology, while the second included benefit and risk information. Next, consumer researchers were consulted regarding the palatability of the information manipulations for consumers. Revisions were made where advised. The two sets of information interventions were pilot-tested. Follow-up questioning with citizens sought to determine whether they felt adequate information had been provided concerning the technology for them to be able to assess purchase intent. Additional specifics about transgenic salmon and pork requested by consumers were unavailable, given the state of knowledge and research about each technology.

In order to disguise that the intent of the questionnaire was to probe attitudes towards two GM products, warm-up questions asked subjects to rate some farming industries on a familiarity scale. In a paper-and-pencil format, they were asked to indicate any issues that they thought of for each of the following industries: pig farming, cattle farming, fish farming and poultry farming. This task served as an orientation to the open-ended questions that subjects would experience regarding transgenic animals.

Citizens were initially asked to 'describe everything that comes to mind when you hear the term transgenic pig.' Citizens indicated their free association responses in an individual booklet. The next set of questions asked citizens to rate transgenic pigs on four, seven-point attitudinal scales anchored by 'bad ...good,' 'not interesting ...interesting,' 'not important ...important,' and 'not acceptable ...acceptable.' To each of these enquiries, subjects indicated their response using the wireless hand-held units, with corresponding numbers from 1 to 7 indicating levels on the scale. Next, subjects indicated the likelihood that they would purchase transgenic pig or products made from it. A seven-point scale was used, anchored by 'not likely' and 'very likely.'

Following this initial set of responses to the term 'transgenic pig,' citizens were provided with additional information. They were again asked to use their booklets to indicate everything that came to mind when they thought about the

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority.../7 concept. They were then cued to respond using their hand-held units to the same four attitudinal and purchase intent questions. A second information intervention revealed more information about the benefits and risks of the product to determine any changes to citizens' attitudes and purchase intent as a function of more knowledge. Citizens were prompted with the same free association, four attitudinal and purchase intent questions after this new information was presented. Finally, citizens were next asked to indicate in their booklets what they thought the benefits and risks would be of the product concept. The same procedure was then repeated for transgenic salmon.

This study initiated public consultation about two proposed transgenic animal products, salmon and pork, and began the task of identifying issues of significance for the public relating to transgenic animals and their introduction to the marketplace. Consumer reactions were gauged as citizens progressively became better informed about each of two potential new product concepts. A combined open and closed-ended methodology was used to identify consumer reactions on an unencumbered basis to animal concepts, revealing progressively more details concerning the benefits and risks of the two technologies to consumers.

Reactions were different for the two agri-food biotechnologies. With salmon, consumers were able to focus relatively single-mindedly on the genetic modification that had taken place. When they first learned about the process of modification, ratings dipped significantly and negative beliefs concerning the process were reported. Potential environmental risks with transgenic salmon are currently uncertain. Consequently, at the second information intervention, citizens were able to focus cognitive activity on the potential of a lower price for transgenic salmon. These positive beliefs produced a lift in attitudes back to the baseline level.

Overall, it appears consumers felt most positively informed about transgenic salmon at the final information intervention. Once subjects learned a little about the concept (modified to increase growth hormone; reach maturity faster), attitudes toward the technology dropped and were associated with anticipations of bad taste. Once the second information described how the fish are produced, attitudes increased, particularly for those who began to associate rapid growth with lower consumer costs. Ultimately, a trade-off between cost and taste began to emerge, with more men than women willing to try the product, even though fewer of them admitted to being regular household food purchasers.

With transgenic pork, however, the reason for the modification required a detailed explanation about the elimination of the need for a feeding supplement and the resultant environmental benefit. An immediate lift in ratings for pork resulted and was maintained across the two information interventions. Providing information also increased favourable attitudes toward transgenic pork, especially after the first information intervention where citizens learned that the transgenic pig is environmentally beneficial. Positive attitudes toward the transgenic pig increased slightly as the benefits and risks were described, but were not large jumps, probably because the effect of a price reduction was captured in the first information intervention. The vast majority of citizens had a favourable attitude toward the technology so long as it would be less expensive, but of comparable quality.

This study takes advantage of the opportunity to proactively engage the public and understand citizen attitudes prior to market introduction of a new technology. Citizens are not vigorously embracing either of these technologies, but their response is equal if not enhanced when disclosure occurs. Lambraki (2002) reported that trust in the regulatory process is currently high, but citizens nevertheless want to know if the foods they are buying are genetically modified. C citizens may not feel sufficiently confident to evaluate the significance of the modification, but with disclosure, at least consumers with more expertise can do so. The public ought to be able to obtain information they feel they need to make informed choices around the adoption of new technologies for their families, perhaps via labelling or broader information dissemination. This study shows that attitudes and purchase intents for new products are affected by information about the product's provenance and the implications of the production processes for people and the environment. Providing this information appears not to decrease opinions, if an appropriate level of information about the risks and benefits of the new technologies is provided. Government regulators and policy-makers can apply consumer insight from this study to avoid similar objections for pork and salmon voiced by citizens surrounding the introduction of genetically modified crops.

Discussion: Expertise and Authority

The transgenic animal study described here is an example of a public engagement exercise in which new knowledge of consumer responses is generated by a study which proactively seeks to establish a base-line of data on consumer acceptance Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority.../9 of genetically modified animals for human consumption. While the members of the public were not led to believe that their responses would have any direct bearing on policy or regulation development and implementation, the insight gained from this study could be used in this way. Equally, from the researcher standpoint, the information could lead to more direct insight into consumer information needs for input into future communication testing. In fact, it has already formed the basis of public engagement work on genetically modified food labelling supported by the Canadian Networks of Centres of Excellence (NCE) for Advanced Food and Materials Network (AFMNet) and a study on organic standards and consumer preferences in a study supported by the NCE for Aquaculture (AquaNet).

Like many other public engagement exercises related to new biotechnology (Gaskell and Bauer 2001; Lambraki 2002), this study took as its starting point a view about the source of the controversy about genetically modified food. While not endorsing any variant of the deficit model of public consultation in which opposition to new technology is attributed to lay-ignorance about scientific matters, there is a sense in which controversies arise because of people's response to not having information. The symbolic affront of not being given information that could lead to autonomous decision-making is arguably the most significant ethical issue in genetically modified foods, one which communication experts suggest would have been easily avoided with better public relations (Einsiedel 2000; Einsiedel, Finlay and Arko 2000). The hypothesis is that proactive engagement might have some positive acceptance of new biotechnology, even if it does not lead to adoption and purchases in the marketplace. A second hypothesis is that it probably matters how the public is exposed to new biotechnology. Part of the resistance to genetically modified crops lies in the lack of obvious consumer benefits. Farmers and seed companies might benefit, but the consumer does not see a drop in price or an increase in quality. Consequently, had the initial release of agri-food biotechnology shown direct and significant benefits to consumers, in technologies they would predictably embrace, there might be less controversy about genetically modified foods. A third hypothesis is that when people have an opportunity to deliberate risks and benefits of new technology prior to be exposed to it, or compelled to make a decision about it, greater acceptance might result. A progressive release of information, and corresponding follow-up and analysis could make for greater acceptance, or perhaps in some instances less volatile rejection, of new biotechnology.

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority... /10 The proactive stance adopted in this study means that the "push" of information to the public that characterizes public engagement and consultation techniques is done prior to the technology's market introduction. This approach is usefully contrasted with, for example, rolling polls about existing, controversial technology such as nuclear power. In the latter case, the opportunity for public input that would change or prohibit the new technology's introduction is at best shortened and but may be altogether missing. Proactive engagement holds open the possibility that the public can respond to technology in ways which reflect their ethical view, and which can meaningfully incorporate aspects of how they would interact with, and respond to, the technology. The problem is that proactive public engagement may be difficult to dissociate from attempts to do market studies to gain perspective on how to best introduce new biotechnology. If researchers conducting engagement exercises were able to appear to the public as trustworthy and disinterested sources of information about new technology, matters might be different. They could approach the engagement with the public proactively, so that the results of the engagement could potentially feed into a decision-making process about whether to adopt or abandon a technology.

Information pushed to the public comes from a perspective, often representing the perspectives and interests of academic researchers that are at the front lines of public engagement. Academics may be able to get access to publics for longer and more intense public engagements than, say, pollsters, because they are generally highly trusted sources of information, and their moderate accountability to the public makes them all the more trusted (Frewer LJ, Howard C, Hedderley D, and R. Shepherd 1996). In addition, in the North American context, academics are frequently engaging the public on new technology developments, like novel genetically modified foods, that are of a kind with other technology developments. Contrasted with certain member states of the European Union, North American public engagement on biotechnology often meets with public enthusiasm, rather than resistance. This enthusiasm can be associated with prevailing positive attitudes about the role of science in society, and more specifically, the common attitude of technological optimism. While this attitude is not necessarily at the forefront of public views about agri-food biotechnology, mostly because fewer than 5% of North Americans farm and the rest tend to be urbanites disassociated from the land, it is in the case of medical biotechnology.

The difficulty for academics conducting public engagement exercises involving a receptive, interested and trusting public is that the information that they need to push to the public may be met with less than critical attitudes, and the responses

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority... /11 they receive back can be more positive than they would be were less trusted sources of information used, such as industry groups. The root of the problem is that the epistemic content, which one can imagine lying on one axis from true to false statements, intersects with a normative access about the trustworthiness and accountability of the information giver on the other. When encountering academics, the public can learn quickly about new biotechnology, and they can also come to more readily trust that information than from other sources. Yet this effect runs contrary to the explicit goals of most social research, namely to provide expert knowledge and gain knowledge about public beliefs, understanding and perceptions of new technology. The orthodoxy is that this epistemic activity should not be conflated with providing intended, or accidental, normative guidance to the public. The desired outcome is that the public's normative response to the epistemic inputs they are given will be a purely respondent variable to the information they are given, and so the research is concentrated on the potential for misleading with the epistemic inputs by providing partial, mis-, dis- or non-information.

Concentrating on the epistemic inputs that will ultimately be the basis of the information given to the public is no doubt important for giving the public true information, for ensuring researcher transparency and accountability, and for improving the usefulness of the information "pulled" from the public as potential inputs into decision-making. Unfortunately, less attention is generally paid to the potential for academic researchers to nuance the results of their research in light of their social position and trustworthiness. Trust in researchers is often taken at face value as a means of conditioning communication channels. Trusted researchers have access to the public, a higher level of public willingness to participate, and greater receptivity to new information. When the public considers the academic researchers as having authority over the information they are conveying, and privileged connectivity to government or industry decision making processes, researcher expertise to conduct the study is accompanied by a sense of researcher authority to "push" and "pull" information, to have authority over a specific kind of social process, and to have authority, even if limited, in antecedent or subsequent decisions.

On its own, this observation might not matter much, or might be easily categorized as the bias that any researcher brings (their mental schema, socio-economic status, subtle cues about their attitudes, etc.) to a public engagement exercise. The context in which public engagements are being conducted has, however, changed. Were there scientific facts that were beyond dispute, or if

Techné 9:3 Spring 2006 Castle, The Balance Between Expertise and Authority... /12 there were new biotechnology whose risks were fully and reliably known, the effect of the interaction between researcher expertise and their authority might be the central methodological issue in conducting public engagement. This is not the scenario new biotechnology finds itself in, however.

Rather, it is increasingly the case that science and technology innovation inevitably generates social problems that require scientific inputs to solve them. These problems are becoming increasingly complex and often elusive (Ravetz 1972; Funtowicz and Ravetz 1993), yet policy and regulatory decisions must be made. Decision-making in the post-normal age involves scientific uncertainty and risk (Beck 1992), and the expertise of researchers capable of engaging and consulting with the public is playing a greater role in many jurisdictions in supporting roles to policy makers and regulators. The involvement of the public in the governance of biotechnology innovation is a relatively new, and certainly not widespread phenomenon, and it is regrettably borne from hard lessons learned from other situations in which technologies have failed, and so too has the communication of the risks drastically failed (Di Marchi and Rayetz 1999). As engagement and consultation of the public becomes more commonplace, and academics are drawn more frequently into their support role, the potential for becoming experts and authorities on biotechnology governance in their public face will increase. Jasanoff has recently called for the development of technologies of humility (Jasanoff 2003), but we may also need to watch carefully for hubris arising in public engagement and consultation if the authority of those involved with the public reaches beyond the mandate entrusted to academics working with the public.

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Citizenship Engagement, Biotechnology and ICTs: Are There Any Inherent Problems?

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Introduction

Any type of citizenship engagement activity must be based, at minimum, on a clear communication from citizens to decision-makers and, ideally, on a clear dialogue between the parties. In this paper I present a brief analysis of how the *medium* (i.e., the use of information communication technologies or "ICTs") could affect the quality of the engagement of citizens in the biotechnology debate. I will conclude that this particular medium does not need to cause any inherent problems if, and only if, the process is managed carefully.

"Clear communication" is a difficult criterion to fulfill in the context of the biotechnology debate because key concepts are unclear. The lack of clarity can be caused by four distinct drivers: (1) a lack of willingness or an inability to clearly define a technical notion, (2) highly technical concepts that defy understanding by average citizens even if defined clearly, (3) the intrinsic value-ladeness of some notions and (4) purely metaphysical notions.

An example for the first kind of driver is the concept of 'biotechnology' itself – are we dealing with a novel or ancient technology? While it is possible, in principle, to clearly define biotechnology in a technical fashion, it is common practice to express one's ideological preference through the conception of the scope of biotechnology. On the one hand, an emphasis on biotechnology as an ancient technology (that includes agriculture and fermentation processes) goes hand in hand with the endorsement of the technology – it is implied that new regulatory hurdles may not be required. On the other hand, an emphasis on biotechnology as a novel high technology goes hand in hand with a critical stance towards its use – it is implied that strict oversight may be necessary.

Examples of highly technical concepts are 'gene,' 'stem-cells' or 'antibiotic marker.' It cannot reasonably be expected that all participants in a citizenship engagement process should want to learn, or are capable of learning, the precise meanings of such concepts.

A key concept that is intrinsically value-laden is 'safe.' To proclaim a particular biotechnological product as 'safe' is very imprecise and perhaps even meaningless. A safe product is simply a product that has been approved by a risk manager. Risk managers have to make decisions under uncertainty. One problem is that sources of uncertainty are diverse and include natural variability, measurement errors, extrapolation errors, possibly falsified data, unexpected effects and more – complex judgments are required. Further, in some contexts (e.g., environmental risk assessment) there are no commonly accepted standards that could serve as comparative measures for what is considered safe. Occasionally the notion 'safe' is used in a non-comparative, absolute way, which is void of any clear meaning.

Finally, some key concepts can be considered truly metaphysical. The notions 'dignity of persons,' 'intrinsic value of the environment,' or 'unnatural method of production' can serve as examples here. These notions are often used in the context of an absolutistic demand (e.g., the prohibition of a type of research) and, thus, will resist clarification from a scientific perspective, which can only inform the contingent rather than the absolute. The clarification of metaphysical notions, by their very nature, can only be partially accomplished.

The existence of unclear concepts renders the biotechnology debate an ideal case for testing the quality of the ICT medium – if ambiguous, value-laden and metaphysical concepts can successfully be "put through" this new medium then most likely one would succeed with any other debate as well. It is likely that the medium will have *some* effect (positive or negative) on the quality of citizenship engagement but it is not clear if the use of ICT *inherently* causes problems that cannot be managed. In this paper, I will list the potential problems associated with the use of ICTs but only pursue in more detail the kinds of issues that could render ICTs inherently problematic. First, however, I want to introduce a simplified model of citizenship engagement that will facilitate the systematic evaluation of the issues.

An "Information Pipe Model" of Citizenship Engagement

'Communication' is a rather complex concept. People communicate differently depending on the context. In terms of information throughput, all of the following will fare differently: one-on-one, groups, town halls, face-to face, telephone discussion, e-mail exchange. This variation is caused by group dynamics and by the fact that body language and tones of voice also carry information that is important in communication.

In the quest for inherent, potentially fatal distortions that could be caused by the ICT medium, however, I propose to start with a simpler analysis. I believe there is merit in starting with an "information pipe model" of citizenship engagement and then discussing the parameter outside of this simplistic model in a second step.

In an ideal democracy one can imagine that there would be direct connections, pipes for information flow, between citizens and decision-makers. In comparison to this ideal, a citizenship engagement process is more complex. Here the direct connections encounter two potential obstacles through which the pipes must be routed: the public service designing and carrying out the exercise and the medium they choose. The choice of the ICT medium renders the pipe model even more complex because it will typically require that technical facilitators mediate between the parties. Within this last model I want to inquire, "does this added complexity cause distortions that cannot be mitigated?" The following section provides a catalogue of factors that should be considered in the design and management of an ICT-based citizenship engagement process. At the same time I will attempt to identify inherent distorting factors that may be impossible to mitigate.

Potentially Distorting Factors Within the Pipe Model

At the top tier of the analysis, only two factors need to be considered. If both *access* and *reliability* are protected from distortion then the communication flow in the pipe model is not affected by the medium: there would be no distortions to the sending, transport, and reception of information (see **Figure 1** below for an illustration for what is meant by "top tier" of the analysis and for the lower tiers discussed later).

In an ICT context, access is a top-of-mind issue both on the sending and receiving end. Not only would one expect *physical barriers* preventing equal access to modern equipment but also more immediate barriers that one could

name "familiarity barriers." A familiarity barrier would exist if some of the parties would be less skilled in the use of an ICT medium than others and, thus, would become comparatively underrepresented. Unequal access to technical facilitators could enhance the effect of a familiarity barrier. Both types of barriers deserve close attention when setting up an ICT-based citizenship engagement process. However, it is also likely that problems are manageable if close attention is paid to the issues.

The reliability of the transport of information is a somewhat less obvious issue. One can distinguish three different potential problems: the external *extraction* of information, the external *infusion* of information, and the internal *fidelity* of the transmission. An example of the first is the *privacy* of the transmission. Experience to date has shown that the use of electronic media for communication is more likely subject to privacy concerns than traditional approaches. A perceived loss of privacy could be sufficient to distort the process because some participants may opt out of the process. An actual loss of privacy would be worse and could seriously distort the process if used in concert with an external infusion of information. *Impersonation* – the manipulation of the ICT process by an outsider to skew the information flow in the "pipe" would be an example of such a distortion. This could be particularly important in the context of an internet-based poll of citizens. Again it is likely that problems of this kind are manageable once attention is paid to them.

This leaves the internal fidelity of the transmission as the final candidate for distortion problems that could characterize the use of ICTs as inherently flawed. The fidelity of the transmission could be affected by the privileged access technical facilitators possess. Such a *facilitator effect* could involve technical manipulation and could also occur as a result of the guidance technical facilitators provide to the users of the medium (this could also be considered an element of the access issue).

Distinct from the effect of technical facilitators we have to consider the potential effect of the medium itself. Here we have to distinguish factors affecting the *quantity* or *quality* of the transmission. The best example of quantity is the possibility of lost transmission due to technical glitches – hardly a problem reserved to ICTs. As part of the evaluation of quality I want to distinguish two sub-categories: *accuracy* and "*translatability*." ICTs can be expected to fare very well in terms of accuracy – little or no noise is introduced into the transition and it is easy to keep highly accurate and precise records. Translatability is a

measure for how well a transmission becomes coded by the sender into the medium and then de-coded by the receiver. Considering the lack of clarity of key concepts used in the biotechnology debate, the issue of translatability warrants special attention.

In all likelihood, content will matter to translatability – what is the nature of information transported in a citizenship engagement exercise? democracies, citizens are not decision-makers and the responsibility for new policies and regulatory frameworks lies solely with elected officials. As a consequence, elected officials and the public administration cannot and must not promise to make policy on the basis of decisions or consensuses arising from a citizenship engagement exercise (other than a referendum or a similar exercise). Therefore, content is <u>advisory only</u>. The upside of this limitation of the power of citizens is that they are at liberty to express their whole view - facts, traditional knowledge, anecdotes, beliefs, predictions, perspectives, fears, emotions, opinions, values, moral imperatives and limits. Some participants in the biotechnology debate may want to prohibit the use of some of these expressions and, thus, secularize the dialogue. In the context of citizenship engagement, however, such a severe constraint on dialogue is neither advisable nor justifiable - religious freedom is a human right, after all. Therefore, we need to evaluate all types of information in terms of translatability – including unclear concepts that resist definition, are highly technical, value-laden or metaphysical.

The worst-case type of an ICT in terms of translatability is probably the use of text-based Internet. One could argue, for example, that it is comparatively difficult to convey such emotive content over the Internet when compared to a face-to-face interaction. But we do have to acknowledge that e-mail "flame wars" are a reality. One could further argue that it is difficult to have sufficient iterations to expound and explore complex concepts, but this limitation could be even more pronounced in a workshop setting. Yet another concern is that the medium could force the secularization of content. Secularisation is an important concern because some participants use metaphysical concepts not because they are clear but because they allow for absolutist' demands – to "put one's foot down" so to speak. However, one could also argue that the pressures to secularize are even more pronounced in spoken communication.

Nevertheless, it is likely that any citizenship engagement process relying on written language (ICT-based on otherwise) could introduce distortions caused by limitations in translatability. The information transmitted in written

communication is a subset of the information transmitted in oral communication - some emotions and tones are hard to capture when one sits in front a keyboard. Ambiguous or metaphysical terminology cannot be earmarked and discussed with the same ease as in an oral communication. It is true, of course, that philosophers have discussed metaphysical concepts in written form since this medium became available. But the very existence of philosophy as a technical discipline suggests that much sophistication is required to do so. In citizenship engagement, these expressions often seem to be used as placeholders to express an absolutist stance that may be difficult to substantiate in a secular world. Nevertheless, the stance is real and deserves to be heard with the emotional force with which body language can provide it. We should also note in this context that religion, politics, and even philosophy still very much follow an oral tradition. Priests still want to be seen, politicians still debate in person in their parliaments, and philosophers ranging from Socrates through Wittgenstein to many current teachers have believed in the importance of direct dialogue. In the final analysis, one could argue that the problem of the translatability of absolutist, metaphysical concepts is yet another access problem – many people are skilled at oral rhetoric but fewer are skilled at the use of metaphysical concepts in a clear, written text.

Access	Physical barriers			
	Familiarity barriers			
Reliability	Extraction (e.g. privacy issues)			
	Infusion (e.g., impersonation)		_	
	Fidelity	Facilitator effect		_
		User/Medium effect	Quantity	
			Quality	Accuracy
				Translatability

Figure 1: Potential problems caused by the use of ICTs in citizenship engagement within the "pipe model."

Thinking Outside of the Pipe

The pipe model leads the mind to think in a linear and simplistic way. It is suitable to describe how government can hear the voice of citizens (to improve the quality of decisions) and how it can inform citizens (as a means to satisfy transparency and accountability requirements) – but not much more.

A citizenship engagement exercise, however, can potentially achieve much more. An important motivation driving the current trend towards increased citizenship engagement is the hope that it will foster *trust*. It is extremely likely that the medium chosen will play a role in how well this particular goal can be achieved. Face-to-face interaction is normally a requirement in a trust-building interaction. ICTs that provide video transmission may approximate the quality of this interaction, but the use of text-based Internet certainly does not.

Another important goal is to improve the capacity of citizens to engage in important and complex debates including the current biotechnology debates (on genetically engineered crops, the use of stem-cells, etc.). One could consider this improvement in capacity a contribution to the building of social capital or one could conceive of it as the project to "build a better activist." Such a capacity requires a rather complex support system. Relationships and networks of interactions are required for a full dialogue among citizens, and between citizens and government. Knowledge must be processed, transferred and grown interactively. Skills to argue and persuade, to accommodate other views and to analyze the strength of arguments must be fostered. The capacity to evaluate the concepts of risk and safety must mature. Again, it is not likely that ICTs currently provide the ideal medium to achieve this complex goal.

Discussion and Conclusion

This analysis illustrates the fact that it is difficult to identify inherent, potentially fatal problems caused by the ICT medium if, and only if, a citizenship engagement project resembles the pipe model described in this paper. The information pipe model satisfies the need for straightforward "listen and tell" that is, indeed, an important component of citizenship engagement. However, citizenship engagement may be undertaken for more ambitious goals: to build trust and to foster the capacity of citizens to meaningfully engage in political dialogue. In this latter case, the pipe model does not apply and ICTs can be considered less than ideal.

Even within the pipe model, the use of ICTs requires close attention to potential causes of distortions – a rather large number of factors need to be managed in this complex system. Further, the use of ICTs (at this early point of technological development) may increase the use of written rather than oral communication. This, in turn, could introduce distortions caused by

translatability problems – in particular in debates that heavily rely on unclear concepts such as the biotechnology debate.

At this point I want to emphasize the fact that the analysis presented here is quite limited. Intentionally, I have searched for problems and have not reported the potentially substantial benefits of ICTs. A key attraction of ICTs is potentially reduced costs. However, they could also provide less obvious advantages, for example the potentially *improved* access to citizenship engagement activities for citizens living in remote areas. Finally, some benefits may be surprising. A recent study revealed, for example, that people are twice as likely to lie over the telephone than by e-mail (Biever 2004, 23). A plausible explanation for this observation is that the automatic recording of e-mails leaves a trail that inhibits some speakers from lying. We have to ask, therefore, if the possible translatability distortions caused by a requirement to write, rather than speak, are not offset by the benefits the automatic recording of statements has on people's honesty.

As a result, this analysis provides merely a critical foundation for the empirical evaluation of ICTs in the citizenship engagement context that ultimately must be addressed empirically. However, it may aid in the design of such an empirical evaluation. And it provides an argument in a favor of full-cost accounting to evaluate the cost-effectiveness of ICTs. The consideration of the costs of all checks and balances required may render the traditional face-to-face dialogue comparatively more financially competitive than one may initially think – not to mention that the tradition provides some results "outside of the information pipe" that are worth noting.

Acknowledgements

I thank David Castle for financially and intellectually supporting this project. I also thank Darin Barney for explaining to me why and how the concept of social capital and the capacity of citizens to engage in dialogue matter in the context at hand. All mistakes and misconceptions are my own.

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The Morning After: Citizen Engagement in Technological Society

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Modified text of a presentation to the meetings of the Society for Philosophy and Technology. Park City, Utah. July 7, 2003. Portions adapted from Communication Technology: The Canadian Democratic Audit (UBC Press, 2005).

Democrats have never met a mass communication technology with which they weren't willing to jump into bed. The mass press, radio, television – each of these has been embraced at one time or another as means for overcoming the problems of scale that have undermined the possibility of genuine democratic engagement under modern conditions. But then there has always been a morning after, whence dawns the horrible realization that these technologies are a counterfeit of the common, conversational engagement amongst public-spirited citizens that is the core of democratic practice; a counterfeit that is as readily enlisted in the service of commerce and ideology as it is in aid of deliberative, rational judgment conducted publicly by equal citizens.

But this time it could be different. At least that is the operating premise of those who look to new information and communication technologies (ICTs) as a potential instrument of more genuine democratic engagement. What is engagement? The choice of this word suggests that it is something other than mere consultation, something more than experts and interested parties being summoned before policy and decision-makers to give advice, or to be advised. To engage is to bind by promise or contract. Engagement is a bond between citizens and their government. What is the nature of this bond? Liberal societies imagine this bond to be defined by consent, but our societies are democratic as well as liberal, and the promise that binds democratic citizens to their government is the promise of meaningful participation, as equals, in the decisions that matter. Disengagement is the breaking of this bond due to the betrayal of this promise. It is this situation – with all of its liabilities – that has given rise to renewed appreciation of the imperative of citizen engagement in liberal democracies.

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This all sounds fine, but it does seem to cast engagement as an end in itself, rather than as a means to other ends. Citizens shouldn't be bound to their governments through active participation simply so that they can be bound to their governments: this bond and the participation that fixes it are not desirable in themselves; they are desirable because of the outcomes they produce. This is what Susan Philips and Michael Orsini have in mind when they define engagement as "interactive and iterative processes of deliberation among citizens and between citizens and government officials with the purpose of contributing meaningfully to specific public policy decisions in a transparent and accountable way" (Philips and Orsini 2002, 11). The phrase 'with the purpose of...' is crucial. It's not just the fact of engagement that matters, but rather its purpose or end. And while the purpose of providing a meaningful contribution to public decisions is certainly among the highest for engagement, it is certainly not the only one that we can imagine.

Citizen engagement can be used:

- to apply the veneer of democratic legitimacy to policy development and decision-making undertaken through elite consultation and accommodation;
- to 'educate' the public and significant stakeholders, increasing their 'awareness' surrounding contentious policy issues in the hope of mitigating 'uninformed' opposition;
- to gather strategic information about how various constituencies might be expected to react to specific policy outcomes; and,
- to test and optimize public communication strategies surrounding particular initiatives, programs and policies.

In each of these cases, engagement serves strategic, managerial purposes that are part of broader strategies of legitimation and discipline. On its best days, citizen engagement can also be for the purpose of enabling meaningful participation in public deliberation and decision-making, by a broader range of citizens than has become the custom in contemporary practice, because it makes for better government.

The point is, new information and communication technologies are open to enlistment in the cause of citizen engagement for any and all of these purposes. In fact, enlisting the Internet for the strategic, managerial and disciplinary purposes of citizen engagement is probably a lot easier than deploying it for more

Techné 9:3 Spring 2006 Barney, Citizen Engagement in Technological Society /25 genuinely democratic purposes. This, of course, is the great temptation with these technologies: they make the easy stuff even easier, and they don't really make the hard stuff that much easier at all. This is because the hard stuff has requirements that can't be satisfied technologically. The commitments and conditions that support engagement for genuinely democratic purposes are political and material, and they can be neither fabricated, nor replaced, by a computer network.

Can digital networks be used as instruments to mediate meaningful citizen engagement? There is no reason to think they cannot be, and there is a growing body of expertise concerning how to best configure online consultations so they conduce to satisfactory democratic outcomes. But the real difficulties with online engagement exercises always arise beyond or beside the technology: they have to do with the social and material conditions that support inclusive, egalitarian, deliberative participation and with the political commitment to transform the results of citizen engagement exercises into public policy.

These are complex material and political problems that do not readily admit of technological solutions. Indeed, technology should rank as highly on this list of material and political problems associated with the prospect of citizen engagement as it typically does on the list of potential solutions. It is at least ironic that the faith in technological mediation as the solution to the problem of citizen engagement in large-scale polities is most pronounced in societies that more-or-less systematically exempt technology itself from democratic judgment and control. For the most part in our societies, decisions about technology are made by some combination of scientists and engineers, large-scale corporate interests, the privately-interested interplay of vendors and consumers in markets, and technocrats. As the Canadian physicist, activist and public philosopher Ursula Franklin once noted, "we now have nothing but a bunch of managers who run the country to make it safe for technology" (Franklin 1990, 121). If this is true, and if technological decision-making is, to a large extent, also political decision making, then its isolation from democratic processes is a considerable normative liability for polities that understand themselves as democracies.

This normative problem is easier to identify than it is to solve. It is possible, after all, that this problem represents not so much a failure as a deep and intractable contradiction between the logic of technology and the logic of democracy. Our societies have become very good at identifying democracy and technological progress at the level of popular discourse. We generally believe, for example, that something called democracy is an essential precondition of technological

Techné 9:3 Spring 2006 Barney, Citizen Engagement in Technological Society /26 advance, and that the advanced state of our technology is proof of the vitality and strength of our democracy. But this might just be ideology: when the chips are down, it is very difficult, and maybe impossible, for a society to hold its commitment to effective democracy, and its commitment to technological advance as a condition of material prosperity, with equal tenacity. The demands of robust democratic practice and the demands of dynamic, unfettered technological advance are just too much at odds to be met effectively (as opposed to rhetorically) at the same time in the same place. In a society that understands itself to be existentially and morally committed to both technology and democracy, only one of these commitments can really be material, the other merely sentimental.

One view of modern societies like ours is that while our commitment to technological progress is clearly material, our commitment to democracy is merely sentimental, a fact revealed in our consistent failure to subject the progress of technology itself to the rigors of democracy in any systematic or institutionalized way. There is, however, trouble down this road: in short, we might say that accepting that there is an essential contradiction between democracy and technology that disallows these two things from really coexisting in a material way concedes too much ground to those who are quite happy to pursue technological development unfettered by democratic intervention. The argument that the very logics of technology and democracy are fundamentally irreconcilable has a performative deficit attached to it: accepting it makes the proposition that technology must be exempt from democratic political intervention become decisively true. This argument, ironically borne of a critique of technology's impact on human affairs, ultimately unleashes technology to develop free of political contest. The charge that technology and democracy cannot co-exist transforms from the technologist's worst nightmare into his dream come true.

This is the agony of living in a society that wants, at once, to adhere to the norms of democracy and to realize what is perceived to be the power, prosperity and ease offered by technological dynamism. On the one hand, there is the sense of at least a tension between the demands of democracy and the demands of technology, despite the latter's clearly political character; on the other hand, there is the recognition that retrieving democratic politics in a technological society requires that we strive to overcome, rather than concede to, this tension, by trying to come up with ways of treating technology as an object of democratic politics that are more material than sentimental. This is a greater challenge than

Techné 9:3 Spring 2006 Barney, Citizen Engagement in Technological Society /27 optimizing a particular set of new technologies as means of democratic participation, because it raises considerations of the broader conditions that support or undermine democratic citizenship more generally.

Democracy is a form of self-government in which citizens enjoy a more or less equal ability to participate, meaningfully, in decisions that closely affect their common lives as individuals in communities, and in which duly constituted political authorities act in response to those deliberations. Democracy of this sort can only exist under certain conditions. These conditions are potentially many, but among the most important, one might list the following: a democratic constitution; an equitable economy; a culture of citizenship; and a politicized public sphere.

The first material condition of a genuine democracy is that its constitution (and by constitution here I mean the comprehensive organization, distribution and institutionalization of effective political power in a community, some of which may be codified in a constitutional document, some of which may not) distributes meaningful political power equally amongst citizens. This means that a democratic society will be resolute in separating effective political power from material wealth, social privilege, prestige and other forms or sources of systemic and prejudicial advantage or disadvantage.

Democracy also requires an economic system that distributes the material resources of effective citizenship relatively equally. When material wealth translates into unequal political power, democracy is offended. So is it also offended when material circumstances make it impossible for people to exercise effectively their political capacities as citizens. One of the consistent lessons taught by Western political philosophy is that citizenship, democratic or otherwise, requires material security and leisure. In order to engage in publicspirited deliberation over the common good, citizens must be free from the sort of serious material insecurity that quite naturally leads to an overriding concern with one's own self-interest. Citizenship also requires leisure -- time liberated both from the obvious necessity of working to survive and the necessity of recreating to survive work. An economy that fails to distribute the practical resource of leisure equitably is one that cannot serve as a material basis for a democracy, because it leaves most people without the time or inclination to engage in citizenship. A crucial mark of a society in which leisure is maldistributed is the professionalization of political life – in which the only people capable of exercising citizenship are those for whom it is also paid work.

A democracy is a society in which citizenship is not only possible but also practiced habitually. That is to say, one of the requirements of democracy is a culture of democratic citizenship. Citizens are the bacteria of politics: they grow in cultures that nurture them. For a democracy to merit its name it must at least attempt to support a culture that nurtures democratic citizenship and habituates people to its practice. A society whose culture habituates its members to self-interested privatism, individuated pleasure-seeking, consumerism or cynicism (to name but a few possibilities) in place of democratic citizenship has only the most tenuous claim to being a democracy.

Democracy requires not just a culture of citizenship, but also an arena in which it can be exercised. This arena is the public sphere. Since the time of the democratic polis in ancient Athens, through the Bourgeois and into the postmodern periods, the public sphere—the sphere beyond the private household—has been understood as a site defined in its publicness by democratic citizenship. A democracy cannot exist unless it maintains a public sphere given over to rational deliberation upon political matters, or even other non-dialogic forms of communicative or political action, by citizens engaged, to the greatest extent possible, as equals. That is to say, democracy requires for its functioning a politicized public sphere of freely-exercised citizenship. A society in which political deliberation is conspicuous by its relative absence from public life lacks a crucial requirement of a healthy democracy. If the public sphere is exhausted by activities—such as, for example, employment, consumption, and recreation—that leave little or no room for citizenship, then it is difficult to describe that sphere as substantially democratic.

Absent these conditions, democracy has scant hopes of being much more than imaginary; and contemporary liberal, capitalist democracies such as Canada and the United States have quite a distance to travel in meeting these conditions. However, given the contemporary pace of technological development in the fields of nano-, bio- and genetic technology, this distance will have to be traveled in something like a hurry, at least if we wish to salvage the ground for citizenship amidst all this improvement and perfection.

The question remains as to whether ICTs can help us travel this distance. The answer to this question depends on the nature of the obstacles that stand between the current situation and a more democratic alternative, and on the extent to which ICTs can help surmount these. For the most part, these obstacles are not

Techné 9:3 Spring 2006 Barney, Citizen Engagement in Technological Society /29 specific to the application of these technologies. Instead, they center on the extent to which the material conditions of democracy in general remain unmet. These obstacles include:

- a constitution (again, not just the written document but the actual distribution of political power) in which the distribution of effective power is dramatically inegalitarian, in which power is conjoined to wealth, expertise, race, gender and other indexes of material advantage on a systematic basis;
- an economy which also systematically maldistributes the resources of leisure and security, in which too many people are routinely denied the material basis of public spirited, disinterested citizenship, and in which the majority of those we could legitimately call 'citizens' (in the sense of being effective participants in decision-making) are professionals;
- a popular and institutional culture which conspires against citizenship and in favor of various forms of privatism, in which a life of even moderate levels of political engagement (in whatever form) is exceptional, and disengagement from public life (for whatever reasons) is the norm; and,
- a highly depoliticized public sphere, given over to laboring, consumption, recreation and entertainment (all of which are private activities conducted in public, and more or less reducible to commerce) and to bureaucratic administration.

One might add here another, commonly cited obstacle to democratic engagement and citizenship in the contemporary context, one which is particularly salient in relation to questions surrounding technology, and that is complexity. As Ron Beiner puts it in a recent book on citizenship: "few people living in the kind of societies we now have possess anywhere near the kinds of expertise one would need in order to weigh alternative policies for the regulation of a modern economy, or the regulation of international affairs, or most other issues with which contemporary states must wrestle" (Beiner 2003, 6) – and he lists biotechnology as first on his list of 'other issues.' (We should be cautious about this construction of the relationship between complexity and citizenship. In a way that is very similar to the argument about an essential contradiction between technology and democracy, the proposition that contemporary political issues are simply too complex for most citizens to handle fairly easily slips into a self-fulfilling prophecy – a sort of apology for technocratic rule by experts as the price of living in the modern world. It is hard to square this pessimism with the

Techné 9:3 Spring 2006 Barney, Citizen Engagement in Technological Society /30 surprise one routinely feels when confronted with the remarkable capacity of everyday people to arrive at reasonable judgments on complex issues.)

The question is, to which of these obstacles do ICTs address themselves? Is it reasonable to hope that ICTs will help us to overcome any of them? It is definitely not entirely unreasonable to hope so. Communication technologies participate in the structuring of political possibilities, and the technical capacities of these particular communication technologies are formidable to say the least. There is no reason to dismiss prejudicially the possibility that ICTs might undermine the nexus between wealth and the distribution of political power; that they might be deployed in a way that contributes to a more equitable distribution of leisure and material security; that they might serve as an instrument for cultivating the habits of citizenship, and that they might serve as the medium of a politicized public sphere (or spheres) in which citizens might engage one another in communicative action.

Much of this hinges on the utilities ICTs present for vertical communication between temporally and spatially dislocated citizens and decision-makers, for horizontal communication amongst citizens (in forms that include deliberation, mobilization and organization) that are also distanced by time and space, and for inexpensive, widespread access to politically relevant and empowering information. There is good reason to be skeptical of the proposition that a lack of opportunity to communicate, or insufficient information, have been the primary obstacles to democratic politics. But one cannot simply dismiss the formidable utilities ICTs provide in this regard, or the good work that is being done – both practically and theoretically – that seeks to optimize these utilities for the benefit of a genuinely democratic politics.

Still, while it is not unreasonable to hope that ICTs might make a positive contribution to meeting the conditions of democratic politics and citizenship, it would be unreasonable to presume that this outcome is prefigured in the technology itself, or to ignore the very real possibility that ICTs will serve to emphasize rather than minimize the obstacles highlighted above. It is quite conceivable, and maybe even likely, that the dominant mainstream deployments of ICTs will serve to reinforce and even extend the disproportionate power enjoyed by economic and other elites; to diminish the already minimal leisure enjoyed by the vast majority of people while heightening their experience of material insecurity; to enhance the culture of disengagement and private diversion from public citizenship; and to accelerate the privatization,

Techné 9:3 Spring 2006 Barney, Citizen Engagement in Technological Society /31 commercialization and administration of the public sphere. Democrats probably have no choice but to get into bed with ICTs, but mitigating the disappointments of the morning after demands sober expectations and an honest assessment of what we are up against.

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Adoption and Governance of Biotechnology in Democracies

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Not long ago food biotechnology appeared to hold the promise of a second 'Green Revolution.' Food biotechnology may still be the answer to the need for a sustainable global food supply, yet the revolution is sputtering. GM corn, canola and soybeans are in commercial production, but GM table foods such as potato and salmon are in various degrees of limbo, far from consumer acceptance. AquaBounty Technologies' AquAdvantage salmon² is ready for evaluation as 'substantially equivalent' to non-GM salmon and for that reason acceptable as food. Regulatory agencies are gearing up to take GM salmon seriously: the Canadian Food Inspection agency recently announced that "Health Canada had committed \$.19 million to research on genetically modified fish in 2002-03, and has committed \$.3 million for 2003-04" (Government of Canada, 2004, 8). But will anyone eat it? We don't yet know. The question is a little clearer in the case of GM potatoes: in Canada, six varieties are approved for human consumption. Yet their owner, Monsanto, does not appear to have convinced any commercial producer to grow these potatoes.³ Producers can scarcely be blamed, since they are in turn dependent on the will of distributors, processors, retailers and ultimately consumers. So far, no one actor appears to be willing to champion presentation of GM potatoes or salmon to consumers.

This hodge-podge pattern of consumer acceptance should be quite worrying to any food biotechnology advocates who supposed a regime of risk assessment, and perhaps labeling, might ease the pressure against food biotechnology introductions. There is something more to consumer worries than assessment of risk, and certainly something more than sheer power politics amongst titans of industry and bands of activist private citizens. There is a more general, unfocussed and inexplicit unease. Here I explore the suggestion that a significant component of the unease is grounded in a particular commitment to and conception of *democratic accountability and control*. The democratic accountability and control objection to food biotechnologies is not that they are unduly risky or that individual citizens' capacity for autonomous choice is not assisted by practices such as labeling. Rather, the objection is something much less choate and much more difficult to address: a quite visceral sense that a

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../33 fundamental aspect of our capacity for self-determination is infringed by the existence of institutions which narrow our range of food choices without a debate extending beyond legislatures and into moral communities. This sense may be accompanied by a further sense of lack of control over those institutions that serve as individual citizens' surrogates without the clear accountability and review process associated with elected representatives.⁴

If this is a reasonable characterization of one kind of objection, we have not just the grounding of a research question but an explanation of one ground for the biotech commercialisers' reluctance to introduce GM salmon, GM potatoes, and so forth: they may want a stronger indication of social acceptance of food biotechnology than can be provided by existing government agencies.

My purpose here is to build a procedural response to the objection from democratic accountability and control, without worrying a great deal about its precise magnitude relative to other concerns about food biotechnology introductions. My response will be built out of reflection on the relationship between three separable discussions: one about the nature and place of citizen engagement in democracies, another about the use of the new information communication technologies (ICTs) to enhance citizen engagement, and a final reflection on the kind of citizen engagement best suited to considering policy and governance issues raised by food biotechnology introductions.

1. Citizen engagement in democracies.

The suggestion I explore in this paper is deeply rooted in a closely related question: the question of why political participation by citizens of democracies is dropping, or at very least changing. Voting, in particular, has declined in the member states of the Organisation for Economic Cooperation and Development (OECD), as has the proportion of citizens willing to say that they have confidence in their government (Nye, Zelikow and King, 1997; Farr and Putnam, Democratic disengagement is worrying for at least two compelling reasons beyond the immediate loss of the barely tangible benefits of civility, neighbourliness, and so forth in civil societies. There is a short-term worry that citizens who do not engage with governments will fail to know and comply with laws, with an attendant loss of efficiency and predictability in our economies and social lives. The more fundamental worry is that the legitimacy of governments' claim to authority may collapse when they can no longer demonstrate that their claim rests on the democratically demonstrated consent of the governed. Who knows what will happen in even historically peaceful states if the people feel the government lacks democratic legitimacy? Recall the heated confrontations

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../34 between protesters and state officials in recent economic summits in Seattle, Geneva, Quebec, and so on.

Food biotechnology introductions provide a useful, concrete example of the kinds of problems faced by liberal democracies whose justification lies in part in their preservation of a certain range of civil liberties. As a matter of democratic accountability, legitimate introduction of autonomy-affecting food biotechnology requires a way of showing that individual persons count in the process and in that way retain genuine authorship over their own lives. I described the democratic accountability and control objection as having a visceral and inchoate core, and by that I did not mean to denigrate the objection but to mark its importance as an objection at the felt core of our autonomy. Choice, preparation, and consumption of food are frequent and universal human activities, at the core of many of our major cultural rituals. The importance of these rituals may in some sense be overstated, but the point is that autonomous individuals have chosen these overstatements and view their capacity for self-determination as closely connected to their capacity to choose a way of life which includes certain food choices.

Citizens' disaffection has been noticed, and governments are trying to find new ways to engage citizens in ways that emphasise the accountability of governments to citizens, and citizen control over choice of policies and governance mechanisms. An influential 2001 publication from the OECD provided the first institutionally-sanctioned gathering of ideas to emphasise a new governance relationship in democracies: the idea of citizens as partners. The idea has gained considerable currency in Canada (Lenihan, 2002), in contexts ranging from plans for public-private-partnerships (so-called 'triple P' arrangements) to new models of distributed public governance (Fyfe and Fitzpatrick, 2002), and renewed efforts to consult citizens on major policy issues in health (Health Canada, 2000). My question here is whether citizen engagement mechanisms can provide us with a way to respond to the democratic accountability and control objection to food biotechnology introductions, so let me turn now to the details of the OECD model.

2. ICTs and citizen engagement.

Here is the OECD model of what it is to engage citizens:

Information is a **one-way relationship** in which government produces and delivers information for use by citizens. It covers both "passive" access to information upon demand and delivers information for use by citizens and "active" measures by government to disseminate

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../35 information to citizens. *Examples include*: access to public records, official gazettes, government websites.

Consultation is a **two-way relationship** in which citizens provide feedback to government. It is based on the prior definition by government of the issues on which citizens' views are being sought and requires the provision of information. Governments define the issues for consultation, set the questions and manage the process, while citizens are invited to contribute their views and opinions. *Examples include:* public opinion surveys, comments on draft legislation.

Active participation is a relation based on partnership with government, in which citizens actively engage in defining the process and content of policy-making. It acknowledges equal standing for citizens in setting the agenda, proposing policy options and shaping the policy dialogue -- although the responsibility for the final decision or policy formulation rests with government. *Examples include:* consensus conferences, citizens' juries (OECD 2001, 23).

This model is explicitly connected to use of the new ICTs to improve government-citizen communications. A March, 2003 Policy Brief from the OECD introduces methods of "Engaging Citizens Online for Better Policy-Making" as the prelude to release of a monograph implementing the three levels of engagement using ICT-enhanced techniques (OECD, 2003).

It is difficult to offer measured response to this model, since it is revolutionary from one perspective, yet retrograde from another. The OECD's work assumes the enduring existence of its members as sovereign representative democracies. In that context, the proposal to give equal standing to citizens in policy dialogue is quite startling. While the implementation Handbook accompanying *Citizens As Partners* quietly describes "direct democracy" as "beyond the scope of the present handbook" (OECD 2001, 36), the idea of partnership with citizens represents a significant change to the role of representatives. Yet from a broader perspective this model of engagement embodies significant unresolved tensions, leaving it rather less revolutionary that it might at first appear.

Some of the tensions I will discuss are implicated in questions regarding best use of new ICTs to enhance citizen engagement. In finding ways to resolve tensions identified, I hope to find simultaneously ways to best use ICTs to enhance citizen engagement to respond to the democratic accountability and control objections. I will examine three particular tensions, beginning with the nature and roles of

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../36 representatives, majorities, and minorities. The second tension involves the problem of scale in finding meaningful individual participation in large-scale political activities. The third tension is within the idea of state sovereignty presumed as fact by the OECD.

The first tension arrives with the failure to make explicit just what happens to the role of representatives as citizen engagement changes citizens' expectations. The flashpoint for this tension will likely occur at the gap between policy-making and decision-making by representatives. In each stage of the engagement model, final decision-making authority is reserved for 'government' – an ill-defined object that presumably includes both legislative and executive dimensions of government and the tensions between them. It is far from clear how retention of decision-making authority by representatives and non-elected officials is compatible with active participation. Citizens who have shaped the policy agenda reasonably expect to see their intentions reflected in policy decisions, else the exercise amounts to an autonomy-denying 'tell and sell' of settled policy Retention of decision-making authority by governments simply recreates in a different way the government vs. citizen opposition implicated in the current mutual alienation of citizens and government. Further strains may emerge as participation mechanisms cope with the age-old problems of democracies, trying to assess fairly the concerns of minorities and majorities without allowing one to tyrannise the other. The 'new' mode of citizen engagement on policy issues may fail to resuscitate failing allegiance to government because the method of engagement is too closely tied to a policy cycle inextricable from the advisory approach and its connection to the enduring question of the proper relationship between constituents, policy advisors, and representatives.

A second tension arises as use of ICTs reduces barriers to political participation and a new 'partnership' model promises institutional arrangements to make participation more meaningful. New incentives and reduced participation costs may lead more citizens to participate in formal political institutions. As more citizens participate, it is increasingly difficult to organise their contributions in ways which fairly and reasonably group like-minded citizens' views together, yet leave apart and mark for special attention those views which are held by only a few yet merit serious consideration. This problem of scale becomes especially acute in two-way communication and in citizen-to-citizen dialogues. ICT-enhanced engagement of citizens is attractive in part because it removes barriers of time and geography while providing different methods of presenting and discussing information, yet the problem of scale generates a number of solutions that again bring fresh problems or replicate existing problems. ICT-tools such as

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../37 natural language processing may soon provide ways of analysing the language of citizens' contributions to provide an automated grouping of families of opinion. This is of little help, however, to a process of actively shaping policy where citizens want to speak to one another to deliberate over problems and not merely to inform government of opinions.

Solutions to the problem of scale are remarkably open to serious objection from understandings of democracy that take it to be justified by its connection to preservation of individual liberties.⁵ Consensus conferences,⁶ and deliberative polling have been advanced recently as consultative devices readily adapted to delivery via ICTs. Deliberative polling involves a representative group of citizens who engage a policy issue over time, working together in various ways to develop a response to the issue. The group's deliberations are often guided by a mediator or facilitator, and changes in the group's views are often tracked by surveys or interviews at various points in the group deliberative process. Deliberative polling undeniably exhibits some virtues. It is cost-effective in the sense that delivery of the program involves relatively few participants and a relatively small amount of data. And while participants do contribute a significant amount of time over the course of a deliberative polling exercise, the small-group focus means that other citizens are freed from the burden of learning about issues, negotiating with other participants, and so forth. In this way deliberative polling may contribute to avoidance of 'consultation fatigue' among citizens. The largest benefit of deliberative polling is not, however, in these costreduction measures, but in its fostering construction of a deeper picture of citizens' preferences.

These benefits are nonetheless likely outweighed by some countervailing considerations regarding representation and democratic ideals. tumultuousness of democratic participation is derived from the difficulty of knowing in advance just who will exercise an option to participate in voting, plebiscites, or other activities. The class of citizens politically engaged with respect to any issue is self-selecting, and not the product of a deliberate attempt to devise a representative group. The point here is that the process of deliberative polling is not neutral as a matter of political morality: it embodies a commitment to a certain kind of participation. Similarly, generalisation from a small group relies on other assumptions open for question or manipulation. The particular interactions seen in deliberative polling groups may in fact be preference-forming, and not just preference surveying, in ways which distort findings as the group is disanalogous to the full political process of a given society. For example, trade-offs made between individual members of a group selected as representatives of larger social groups may be subject to interpersonal

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../38 dynamics not present in group-to-group interaction in the wider political sphere. Here we arrive at what I take to be the strongest argument against activities such as deliberative polling: these activities understand democratic process as preference identification rather than preference identification *and choice* and in this way deny or at least deemphasise the value of active individual participation as a matter of authorship of one's own life (Raz, 1985, 470). This depends on a presumption of the value of a robust conception of autonomy, but such conceptions are readily available in the work of scholars such as Joseph Raz, and such conceptions are arguably evident in constitutional documents of various democracies of the kind under discussion here.

Let me run out more briefly the same kind of objection to consensus conferences, guided attempts to reach consensus on some issue. To the extent that consensus is the goal, these conferences presuppose its possibility or positive value. This presupposition carries very specific, anti- or non-liberal commitments regarding the nature of democracy, pluralism, and value conflict – in particular the presupposition that with respect to the issue engaged, it is worth spending time seeking consensus. This is not to say that these are not defensible commitments, but it should be observed that consensus is controversial and not essential to respect for democratic accountability and control. In pursuit of consensus there is a danger that democratic debate may be reduced to mere management of conflict, and worse, reduced to professional management of opinion in a way which counts dissent as an aberration to be smoothed over. (I shall speak more of this in a moment when I return to the question of the kind of debate needed for democratic deliberation regarding food biotechnology introductions.)

The third tension in the OECD engagement model comes from the other half of the OECD's assumption regarding the social context of consultation: that representative democracies operate in sovereign states. Yet the scope of state sovereignty has diminished significantly in the gradual globalization of economic markets and the equally gradual development of a web of global treaties enabling international commerce at the cost of state sovereignty. Put simply, treaties bind states in ways which may be beneficial yet nonetheless represent a constraint on state action. In an age of interdependence and global trade agreements which constrain state sovereignty, engaging citizens or publics is increasingly difficult. Meaningful participation requires more knowledge than ever before, and more importantly, policy problems arising often cross national borders to include international publics. One immediate example of this phenomenon can be seen in the banning of Canadian beef from US markets on the grounds that Japan has banned Canadian beef on suspicion of BSE infection, and the US and Canadian production systems are so closely intertwined that once Canadian beef enters the

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../39 US it is no longer readily distinguishable from US beef. Some governments' activities explicitly recognise the fact of increasing interdependence, but many have yet to adapt. The new Scottish Parliament, for example, hears petitions on any matter within its jurisdiction without restriction as to the origin of the petition. I shall return to this point below so I will not press it further here – publics and issues are no longer easily contained in sovereign states, largely because issues and political philosophies are shared by publics across sovereign divides made porous by globalization. In

3. Food biotechnology introductions.

It should be unsurprising that my response to the democratic accountability and control objection does not rely on either of the first two stages of the OECD's model of citizen engagement. There is an air of false gift-giving about the idea that provision of information to citizens is in some way a novel improvement of engagement in the context of democracy. Even on a quick formulation of democracy as government of the people, by the people, for the people, there is the clear implication that citizens must know of the activities and options of government since those activities are for the sake of citizens and chosen by citizens. Surely it is part of the *core* of the nature of any functioning democracy that citizens are provided information by government in order to make choice meaningful, and not as part of an optional or improved strategy of engagement. More pragmatically, from a political standpoint, the existence of the objection rules out engaging citizens regarding food biotechnology introductions through offering further information regarding government approval processes. It is probably naïve to suppose that more information about governance processes will defuse objections to their existence. More information may be treated as little more than an opportunity to develop a more detailed pathology of a failed system.

Further consultation is equally unlikely to provide a satisfactory response to the objection. If I have the nature of the objection right, a merely consultative process cannot be satisfactory so long as governments retain agenda-setting and decision-making authority, and fail to engage in a kind of partnership which offers both capacity to contribute and power to ensure that contributions are meaningfully reflected in eventual policy. An objection from accountability and control can only be met by sharing of authority, as depicted in the third level of the OECD model. Anything less fails to protect the capacity for self-determination characteristic of democratic decision-making. (Consider the recent uproar in Glasgow when only 150 tickets were issued for one of six national conferences on GM introductions (BBC, 2003)). Active participation is needed,

Culver, Adoption and Governance of Biotechnology.../40 Techné 9:3 Spring 2006 and active participation with respect to complex issues requires deliberation. Once again we encounter the problem of scale. We must ask how a deliberative and decision-making partnership between citizens and government can overcome the problem of scale within constitutional and policy constraints of representative democracies inclined toward gradual and not dramatic institutional reform. In the specific context of food biotechnology introductions, the problem of scale is not just the technical problem seen in design of ICT-enhanced consultation. A politically viable and democratically justifiable mechanism for active partnership must incorporate a place for representatives while recognising the impact of globalisation of markets and treaty-driven interdependence. The mechanism must also find a place for more local concerns – regional and cultural variations that may result in ineliminable value pluralism in the future if not now. And, of course, the solution must balance respect for self-determination against benefits of efficiency and predictability achievable under widely shared standards.

I think there is a fortunate convergence between the useful aspects of the new ICTs in enhancing deliberation, and some of the political and economic pressures bearing on the changing nature of sovereign states. The interdependence of states has been accompanied by what is sometimes called a 'hollowing out' of the state, as states are bound by increasingly by international agreements and devolve internally. As legal theorist and European Parliament member Sir Neil MacCormick put it, "Whenever we should date the emergence of the sovereign state, and wherever we may locate its first emergence, it seems that we may at last be witnessing its demise in Europe, through the development of a new and not-yet-well-theorized legal and political order in the form of the European Union" (MacCormick, 125).

Internal devolution occurs in various ways for various reasons. Devolution can be driven by nationalist sentiment, often the root of a drive for self-determination made possible by increased communications capacity and globalization of markets. Equally pressing reasons can be found in central governments' view of devolution as a way to foster greater efficiency, transparency, and accountability in governance practices. Britain's place within the European Union stands as a useful example of the hollowing out of the state. The Judicial Committee of the House of Lords is no longer the court of final appeal, as European bodies supersede that court, and at the same time Scotland has recovered its Parliament after a three hundred year interval, and Wales is receiving a legislative assembly. More interestingly, outside these nationally driven changes, the Northeast of England has received a long-awaited assembly whose justification rests both on historical identity and a sense of economic self-determination. All of this leaves

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../41 us with fresh options in responding to the multiple dimensions of the problem of scale. Again I borrow from MacCormick:

The end of the sovereign state creates an opportunity for rethinking of problems about national identity. The nation as cultural, or linguistic, or historical, or even ethnic community is not coextensive with the (former) sovereign state, the traditional 'nation state'... It also suggests a need to reconsider some issues about democracy, or at any rate, about representative government... It is not only our theories of law, but also our theories of democracy, that are challenged by the new forms that are evolving among us in Europe (MacCormick, 135).

The possibility of localised deliberation opened in European nations and attempted in new forms such as electronic petitioning in Scotland is not, however, limited to Europe. In Canada, the industrialised world's most urbanized state, cities have long pressed for revision of the existing constitutional arrangement in which local authority is entirely delegated from provinces. This demand is consistent with the OECD's call for development of governance mechanisms suited to what it identifies as Canada's various 'functional macroregions' consisting of urban centres, adjacent rural regions, and remote regions such as northern Ontario, and the territory of Nunavut with its special blend of common law and Inuit custom (OECD 2002, 3). The OECD observes that:

Although Canada has made significant progress towards implementing place-based policies... deficiencies in local governance remain the Achilles' heel of local and rural development. More sustainable solutions must evolve from the grassroots of local communities. Without changes in decision-making capacities at that level, it will prove difficult for economic development policies to transcend the federal/provincial jurisdictional issues and become more effective (OECD 2002, 5-6).

The OECD study's observations are consistent with a call from the Canadian central government for renewed attention to public-private partnerships for better governance. In its 1996 "Framework for Alternative Programme Delivery" the Treasury Board Secretariat advertised its willingness to encounter novel governance methods: "The interdependent nature of the Canadian federation and the drive for citizen satisfaction continue to be the hallmarks of the Government of Canada's approach to the creation of organisational forms such as agencies and collaborative arrangements outside the departmental model" (Fyfe and Fitzpatrick, 2002, 68). The Treasury Board further accepted that "collaborative partnerships are not only management tools, they are also instruments of governance; collaboration is the appropriate response to increasing

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../42 interdependence" (Fyfe and Fitzpatrick, 2002, 54). Viable examples of shared governance, even across borders, are rare but do exist. The Gulf of Maine Council, for example, consists of American and Canadian government agencies and non-governmental agencies, working together to find joint solutions to coastal management issues. ¹²

4. Conclusion.

The elements of a solution are visible in this, and it remains only to assemble them. Inchoate objections to accountability and control require something like a national debate, and not just debate on the content of the issue, but the institutions used to encounter the issue. National debates, however, are difficult to conduct, no matter how significant their issues. The problem of scale crops up again, as does the accompanying problem of demonstration that a national debate can generate results which are both nationally and locally relevant. The question of consultation fatigue arises as well. Only certain issues are worth bringing to national consultation in democracies whose citizens have interests beyond government.

Attention to the possibilities of devolution and partnership provides the basis for a structural response to the problem of scale. While it may be desirable to maintain a national policy with respect to food biotechnology introductions, it may be possible to choose to devise institutions which can develop and implement variations from national policy on as as-needed and as-warranted basis in particular functional macro-regions. 'As-needed' in this context can mean a need demonstrated by grass-roots action such as petitioning, or dissatisfaction or disengagement observed from central government. These amount to two dimensions of my response to the democratic accountability objection: first, accountability and control over certain issues is offered to functional macro-regions. Second, devolution of actual control is contingent on specific regions' demonstration of their actual capacity to provide a workable governance plan chosen by citizens in that macro-region. Devolution of this kind is justified by the need to respect the capacity for self-determination, and something like the principle of subsidiarity operating in calls for devolution to serve both economic and democratic imperatives. It should be noted that this plan does not amount to a simple call for constitutional reform generating further levels of government. Rather, this approach amounts to nothing more than a variation on the existing Canadian constitutional practice of delegating authority to municipalities. The variation lies in the flexibility of the approach: on a regionally-chosen basis, specific issues are placed under the mandate of regionally devised institutions or partnerships, while central government retains

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../43 authority over issues unsuited to regional governance or simply lacking a viable regional solution.

However sensible the framework of this plan, it is still faced with a problem of scale, albeit reduced, and the question of the place of representatives in devolved governance schemes. The problem of scale is likely not itself amenable to technological solutions so long as we accept that the practice of democracy entails provision of mechanisms to allow minority opinions effective expression. A satisfying response to the problem of scale and its involvement in democratic accountability and control likely lies at the institutional level of institutional innovation, and there technological solutions may be more helpful. Precisely those methods of consensus building I criticised in the context of issue-resolution might be well-chosen as approaches to institution-building. Put roughly, while it may be offensive to self-determination to presuppose the possibility of consensus on resolution of substantive issues, it may be much less offensive to selfdetermination to hope for consensus on institutions suited to enabling useful debate and resolution of substantive issues. The new challenge seems to lie just as much with choosing democratic institutions that permit best use of the new technologies as it does with finding technologies to enable democracy.

Use of ICT-enhanced engagement mechanisms such as online information presentation and fora can be tremendously useful as a means of increasing access to the political process and providing nuanced engagement of fundamental public questions such as those about food biotechnology. The e-petition system in Scotland, mentioned above, is a superb example of a reform that brings a new dimension to political participation – petitions which can be dissented from, and a fresh version or reasons for dissent become part of the record of the petition. Mechanisms of this kind may be the best hope for novel institutions chosen through citizen engagement processes and review which provide a meaningful and direct way for citizens to engage in democracy – not a direct democracy of whims and prejudices, but a democracy of evolving institutions, perhaps evolving more rapidly than in the past, in step with emerging social challenges.

In a democracy of evolving institutions, representatives do not lack a role, but have a changed role, that of experts in institutional development. I have already mentioned the Gulf of Maine Council as an example of governance cooperation in a functional macro-region. It may be possible in the future to extend the mandate of this institution beyond transboundary harmonisation to a representative-run partnership whose precise contours and content are determined by citizens on both sides of the borders, using ICT-enhanced consultation websites, comparative modelling tools, and two-way communication tools to

Techné 9:3 Spring 2006 Culver, Adoption and Governance of Biotechnology.../44 choose institutions and policies to develop an integrated coastal zone management program. Such a program might be the very best location for development of policies regarding GM salmon or GM potato as food biotechnology, whose risks and benefits are inextricable from considerations regarding the environment in which they are grown. The willingness of senior levels of the Canadian government to attempt novel partnerships such as the Gulf of Maine Council is testimony to the fact that existing methods of governance and consultation have shortcomings. The way is open, if we choose it, to careful experimentation with ways to redress the democratic accountability and control objection, and to give a full and fair hearing to the merits of food biotechnology.

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By 'food biotechnology' I mean 'novel foods' as defined in: the Food and Drug Regulations - [Amendment (Schedule No. 948), as published in the "Canada Gazette Part II" - October 27, 1999]. "a) a substance, including a microorganism, that does not have a history of safe use as a food; b) a food that has been manufactured, prepared, preserved or packaged by a process that has not been previously applied to that food, and causes the food to undergo a major change; c) a food that is derived from a plant, animal or microorganism that has been genetically modified such that the plant, animal or microorganism exhibits characteristics that were not previously observed in that plant, animal or microorganism, the plant, animal or microorganism no longer exhibits characteristics that were previously observed in that plant, animal or microorganism, or one or more characteristics of the plant, animal or microorganism no longer fall within the anticipated range for that plant, animal or microorganism."

² See www.aquabounty.com

³ Personal communication with Shirlyn Coleman, Manager of the Plant Propagation Centre, Department of Agriculture, Fisheries and Aquaculture, Government of New Brunswick, May 30, 2003. This is not to say that GM potatoes are universally rejected as as table food: consumers in China are positive regarding many GM foods. See Curtis et. al. (2002).

⁴ See, for example, David Suzuki, "Science Matters: Genetically Modified Foods Part II" November 3, 1999 syndicated in Canadian newspapers and reproduced on the David Suzuki Foundation website: "At a time when public concern over GM crops are mounting, it is foolish and dangerous to be watering down regulatory powers and reducing public confidence in food safety. The extensive use and consumption of GM crops has occurred with no public consultation, and what data does exist on the health effects of GM food has come from the biotech industry itself! It is unethical to conduct medical experiments without informed consent from the participants. Yet we now have more than 40 GM products in the Canadian food systems, without giving consumers a choice. We are part of a massive experiment and only after thousands of people have eaten GM food for years will we be able to tell if they are harmful. At the very least GM food should be labelled so we can choose whether to be part of the experiment or not."

⁶ See, e.g., the Danish Board of Technology's exercises, http://www.tekno.dk/subpage.php3?survey=16&language=uk.

See James Fishkin's efforts at the Centre for Deliberative Polling, http://cdd.stanford.edu/.

As the FAQ portion of the Scottish e-petitions facility explains, "The public petitions process is a key part of the Scottish Parliament's overall commitment to openness and accessibility. It allows individuals, community groups and organisations to participate fully in the democratic process, by raising issues of public concern with the Parliament and allowing members to consider the need for change. Any person or group may submit a petition to the Parliament. See: http://www.scottish.parliament.uk/business/petitions/guidance/index.htm.

¹⁰ I do not intend any particular specialised meaning of globalisation here: I intend only to refer to the increasingly global scope of markets, migration and communication – money, people, and ideas.

⁵ There is of course a complex underlying debate which I cannot take up here, between the theory of liberal democracy on which democracy is justified as the best political system in light of its preservation of liberty, and the Kantian, Rawlsian, and communitarian views in which the principles of justice require democracy which in turn requires respect for liberty. There are complex differences between justifications of democracy for the sake of liberty, and justifications of liberty because its preservation serves the requirements of justice.

⁸ For the sake of comprehensiveness I should mark as well relevant further questions regarding the process of mediation. There is widespread agreement amongst ICT-enhanced consultation advocates that mediation is a key part of successful online consultation, to limit excessive or repetitive contributions, to calm excessively boisterous discussion, and so on. There is a paternalistic element here as consultations typically employ facilitators who operate in a situationally-determined way and not in a rule-governed, appealable fashion typical of procedurally regular parliaments and associated bodies. Values such as the importance of continuing dialogue may mask fundamental oppositions, for example.

¹¹ From the European Parliament: "The general aim of the principle of subsidiarity is to guarantee a degree of a independence for a lower authority in relation to a higher body or for a local authority in respect of a central authority. It therefore involves the sharing of powers between several levels of authority, a principle which forms the institutional basis for federal States."

¹² See www.gulfofmaine.org.

Untangling Technology: A Summary of Andrew Feenberg's *Heidegger and Marcuse*John Farnum Portland Community College

In his most recent book *Heidegger and Marcuse: The Catastrophe and Redemption of History*, Andrew Feenberg argues that a new orientation for social theory is needed and challenges the relevance of any theory that does not seriously engage the questions concerning technology in our contemporary societies. Through a reconstruction of Heidegger's phenomenological interpretation of Greek *techné* synthesized with Marcuse's historically liberated aesthetic sensibility, Feenberg uncovers the possibility of a grounded phenomenological/experiential perception of social and technological potentialities currently obfuscated in our historical epoch. According to Feenberg, this obfuscation is the product of social and technological forms that frame and reify our experience to such an extent that we find it difficult to even perceive alternatives to current hegemonic structures.

What is remarkable about this book is Feenberg's patient exploration of the intellectual developments stretching from ancient Greece to Marcuse's last writings concerning a liberated society. The patience exhibited reminds me, to indulge in a metaphor, of hours spent cross-legged next to my grandfather untangling fishing line on the banks of one of the many lakes found on Colorado's Grand Mesa. Without a steady hand, the philosophical connections that bind Aristotle to Hegel to Lukács to Heidegger to Marcuse to Feenberg might read as a tangled mass of knots that appear impossible to pull apart. Like a fishing line, sometimes when you pull out one knot others form and the whole process can become extremely frustrating and overwhelming. If one is patient, however, an untangling can be accomplished and the line can be reused. The ability and patience needed for Feenberg's untangling of these thinkers' ideas and the introduction of his own interpretation is remarkable from my own perspective, since I too (as a young graduate student) tried to unravel the arguments in Marcuse's dissertation Hegel's Ontology and the Theory of Historicity. I was quickly overwhelmed by Marcuse's analysis of Hegel and Aristotle, which led me to the "safe and comfortable" shores of Habermas. After reading Heidegger and Marcuse I now know why I was so overwhelmed. Feenberg sees Hegel's Ontology as an attempt by Marcuse to synthesize Heidegger's phenomenology with a radical dialectical analysis of history [Tangle #1]. In order to make sense of Marcuse's analysis in *Hegel's Ontology*, Feenberg

examines Heidegger's lectures on Aristotle in the 1920's and 30's, which Marcuse attended as a student. Here Feenberg locates a key to Marcuse's dissertation in the concept of techné as a central category in the phenomenological analysis of human experience. To understand Heidegger's interpretation of techné, Feenberg returns to ancient Greek philosophy and explains how the Greeks viewed nature as an interconnected part of any practical activity [Tangle #2]. When analyzing the potentiality of a practice, say of producing an artifact, a person has to work with and through the inner potentialities of a natural substance: "The craftsman is not the cause of the chalice in our sense at all, but a coresponsible agent in bringing the chalice into appearance" (17). The recognition of humans as dependent on and involved with nature is a nonhierarchical interactive realization of the human place in the natural world. In Heidegger's interpretation, the "world" unfolds as a set of possibilities that can be explored and nature becomes a set of potentialities that can be utilized for human ends. The disruption of this potentially harmonious relationship with nature occurs in the modern shift to an anthropocentric domination of nature as resource and raw material—which then turns everything. including ourselves into "standing reserves" for use in modern technological practices. Thus, as Feenberg explains, what the Greeks saw as the potential in nature to be shaped to human ends and goals is irreplaceably lost in our modern technological way of existing: "The technological enframing that takes its [the premodern understanding of techné place does not so much create meanings as destroy them, de-worlding things and reducing them to a "objectless" heap. To the extent that it reveals meaning, what appears is an endless repetition of the same "standing reserve," Bestand, not the rich variety the Greeks found in their world" (43). This lost ability in modern times to recognize the potential of nature as a process of unfolding and revealing possibilities of living provides Heidegger with the gloomy prognostication that any hope is out of the hands of human agency and a radical reconstruction of existence can only occur through a quasidivine intervention of new forms of revealing being (45).

Once we recognize the connection of *techné* to a Heideggerian revelation of potentialities, Feenberg argues that we can see Marcuse's attempts in *Hegel's Ontology* as a way of capturing this insight while also correcting Heidegger's ahistorical phenomenology through a historical account of being that utilizes a necessary Hegelian framework [Tangle #3]. For Marcuse, Hegel's emphasis on labor provides an essential link that enables a conceptual synthesis of history and phenomenology. When analyzing the structure of embodied historical existence, Marcuse explained that we are able to theoretically understand how human

existence is primarily produced as an ontology of action: "Being, in its initial positing, produces itself as an existing being-there and drives itself onward toward higher forms of existence. Because this productive activity is historical and happens in the events that shape the human world, it involves human action" (67). Once humans realize that our activities produce our current horizon of being, we can recognize that the "chains" of our social structures are self-imposed. The next step takes us to Marcuse's encounter with Lukács [Tangle #4]. Marcuse borrows Lukács' theoretical efforts to transcend the reification that is present in modern forms of life dominated by capitalistic economic structures. Lukács provides Marcuse a theory of the modern forms of alienation that undermine the unity of the proletariat with being. The hope for Lukács is a proletarian revolution that would "disalienate" labor and provide a reunification of subject and object (worker and being) (75). The process outlined cannot merely be theoretical, but rather must occur at the most basic level of existence: human production.

Lukács' hope for revolution becomes unrealistic for Marcuse in the midtwentieth century, which leads Marcuse on a search for a new ground for social critique [Tangle #5]. While Marcuse agrees that Lukács' diagnosis is correct and affirms the need for a grounded theory of human liberation, the sources of real transformation remain elusive in advanced industrial civilization. Marcuse's various attempts to ground social theory might be familiar to most readers and it is something I will leave Feenberg to explain in chapter 5 of Heidegger and Marcuse. Feenberg argues that the winding theoretically road Marcuse travels from his Hegelian/Marxist period (Reason and Revolution) to his Freudian period (Eros and Civilization) to his late turn to aesthetics (An Essay on Liberation) never provides an adequate ground to support a sufficient basis for critique. Here is where Feenberg takes a significant turn: Marcuse's theoretical projects needed the phenomenological resources of Heidegger in combination with a fuller version of an aesthetization of technology in order to address the problems faced in modernity. Feenberg thinks that this synthesis could have provided Marcuse with the theoretical and integrative ideal/practice of liberation that would have served as the ground for social critique. Ideally we would find a phenomenologically-based aesthetic that would divide values into life affirming and life oppressing, while practically those values would be instantiated into technological designs that liberate human sensibilities instead of repress them. Feenberg explains,

Aesthetics here is not a matter of contemplation, but should be interpreted in classical terms as an ontological category. In its application to human affairs, it expresses the reflexive significance of the actors' actions for their existence. In the myth of the Islands of the Blessed that concludes the *Gorgias*, the naked souls of the dead are judged in their reality. So the Marcusian aesthetic evaluates naked societies, stripped of their self-congratulatory media images. A society where homelessness, urban squalor, prisons, and war are commonplace defines itself by these "actions" on terms we can reasonably condemn on aesthetic grounds in this classical sense (112).

For Marcuse, this new aesthetic sensibility would provide the basis of a "civilizational politics" that would determine the direction and the look of historical change. What is at stake in this new concept of politics, according to Feenberg, is not political "power, laws, and institutions, but the very meaning of our humanity" (112).

In the penultimate chapter of *Heidegger and Marcuse*, Feenberg unifies these insights by arguing for a modern interpretation of techné that Marcuse could have used to support his theoretical positions [Tangle #6]. The new idea of techné (stripped of the residue of ancient "essentialism") borrows the phenomenological framework of Heidegger's appropriation of Aristotle but retains the view of social emancipation Marcuse continually advocated. Phenomenology, according to Feenberg, provides an ontological framework to describe the interaction between human perception and nature that can recognize the potentialities latent in the process of creative activity: "A reciprocal interaction and exchange takes place joining maker and materials in a unity in diversity, a totality" (130). The resultant "harmony" between human and nature is a prerequisite for recognition of the potentialities inherent in the interactive process of production. A new form of perception can hopefully be developed that is currently missing in the dominating gaze of modernity. Coupled with the previously mentioned phenomenological insight is the critical social insight that current conditions are oppressive and could be changed to include more liberating designs and actualities:

In a free society the universal element involved in all perception, the "concept" under which a "manifold" is unified, would incorporate an immediate awareness of the potentialities of the object. The object would be perceived through its concept, as it is today, but that concept

would include a sense of "where the object is going," what it can become. The object to which these qualities are attributed is not the object of science. It is the lived experience of the world in which the perceived incompleteness and imperfection of things drives action forward (131).

This active perception is most needed in our technological designs regarding nature. Feenberg argues we can't go back to nature, but rather we must go forward to a transformed future full of creative potentialities—a future that is currently concealed from view.

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¹ All page citations are to Feenberg 2005.

Comments on Andrew Feenberg's *Heidegger and Marcuse*¹ Daniel Dahlstrom Boston University

The aim of Andrew Feenberg's ambitious and intriguing study is to demonstrate the importance of Heidegger's early work for Marcuse's thinking, early and late ("even against Marcuse's explicit self-understanding"), and, more importantly, to project its undeveloped promise as a philosophy of technology. Feenberg argues that "Marcuse remained true at some level to an earlier Heidegger the later Heidegger rejected and concealed" (xiv).² Marcuse, we are told, shared the early Heidegger's "crucial conviction that the notion of being is modeled on productive activity in Greek thought and the thought of Aristotle in particular" (85; see also 53, 88, 100). Opening chapters on the Greek understanding of techné and Heidegger's early and later reflections on techné and technology give way to four chapters recounting Marcuse's early work on Hegel and later works on Freud and aesthetics, but always with the purpose of demonstrating the persisting valence of that "crucial conviction." The result is a lucid and forceful argument for retrieving the insights of the Greek understanding of techné, as Feenberg sees them interpreted by the early Heidegger, in order to develop the unrealized potential of Marcuse's thinking as the prototype of a needed phenomenological Marxist approach to technology in the present. The argument is not above reproach in my view and, in the interest of stimulating discussion, I would like to offer a few criticisms, suggestions, and pleas for clarification. My remarks are divided into two parts. In the first part, I raise some objections to Feenberg's interpretation of Heidegger's thought. In the second part, I express some reservations with the project that Feenberg derives from the phenomenological promise of Marcuse's philosophy of technology.

I

According to Feenberg, Heideger and Marcuse agree that "the source of the uniqueness and tragedy of modernity" is the value-free or neutral character of technology or, equivalently, "the obliteration of humanity's special status and dignity as the being through which the world takes on intelligibility and meaning" (2). The hidden source of their common approach is, Feenberg contends, the early Heidegger's interpretation of the constructive character of Greek techné and its contrast with the destructive character of modern technology. One of the basic, recurrent contentions of Feenberg's interpretation is that Heidegger's view of the productionist metaphysics developed by the

Techné 9.3 Spring 2006 Dahlstrom, Comments on *Heidegger and Marcusel* 53 Greeks was primarily positive "until the mid-1930s" (36). Indeed, with their appreciation of the way beings reveal themselves, Feenberg submits, "the Greeks discovered the basic premises of Heidegger's philosophy" (38). Yet Feenberg also registers how Heidegger presumably changed his views in this regard. Feenberg writes: "In the latter Heidegger productionism is treated negatively," Feenberg writes, "as the fundamental error of Western metaphysics. Although Heidegger begins his analysis with production, it ends in existential and eventually quasi-religious themes far removed from these beginnings" (80). Moreover, he seems to regard Heidegger's appropriation of these Greek insights not only as Heidegger's major achievement, an achievement upon which the early Marcuse, drawing on Hegel, Marx, and Lukacs, effectively builds, but also as the legacy of Heidegger's thinking with the most potential for addressing central aspects of contemporary problems.

But this interpretation of Heidegger strikes me as ill-advised. Though Heidegger contrasts Greek and modern views of technology, it does not follow that he thereby endorses the Greek view or takes from the Greeks, as Feenberg puts it, "his own theory in Being and Time according to which everyday instrumental activity offers the basic access to reality" (5). The idea that Heidegger embraces the Greek conception of techné is suspect given the destructive purposes of Heidegger's historical studies from very early on. In the years immediately following WWI, it bears noting, Heidegger takes aim at the Greek and especially the Aristotelian influence on Christianity. Thus, in a lecture draft from 1918 he writes: "The predominance of the theoretical lay already in the staunchly natural scientific, naturalistically theoretical metaphysics of Aristotle and its radical suspension and mistaking of the problem of value in Plato, a metaphysics that was renewed in medieval Scholasticism, such that scholasticism, within the totality of the medieval Christian world, strongly endangered the immediacy of religious life and forgot religion over theology and dogmas" (Heidegger 1995: 313f; see, too, ibid. 306). Midway through lectures in the summer semester of 1920, he pleas for a Christian theology "free of the Greek world [Griechentumfrei]" (Heidegger 1993: 91). Shortly thereafter in a letter to Löwith, he famously characterizes himself as a Christian theologian. Moreover, his difficulties with Greek thought and its Scholastic appropriation are due in large measure to the consequences of a productionist metaphysics for religion and the historicity of revelation. He regards those consequences as equally deleterious for philosophy. The early Heidegger, for all his respect for classical Greek thinkers, has fundamental misgivings about the quasi-pragmatic way they think of or, better, came to interpret being, in his view a key source of the Western obliviousness to

Techné 9.3 Spring 2006 Dahlstrom, Comments on Heidegger and Marcuse/ 54 being. Taking the ability of things to be used, their availability and accessibility as their most fundamental reality is, in Heidegger's view, a Greek legacy. other words, to use his own shorthand here, he objects to the Greek identification of being with presence. Moreover, while Heidegger emphasizes the manner in which everyday instrumental activity inter alia constitutes the overlooked supposition of theory, the second half of the published text of Being and Time amply testifies to the fact that he hardly considered such activity without further ado "the basic access to reality"-i.e., without consideration of the difference between existing inauthentically and authentically. The fact that Feenberg is largely silent on the themes of the second half of the text of Being and Time is probably telling, since it is difficult to see how the themes elaborated there can be understood along the lines of a productionist metaphysics. In that second half Heidegger takes up, among other things, various themes from his phenomenological investigations of religious experience, recasting them in terms of the project of fundamental ontology and the methodological a-theism that he adopts in the interim, but with a similar intention of demonstrating the need for dismantling (Destruktion) the Western metaphysical heritage, from its Greek inception, in order to understand what it is to be.

It bears noting that the early Heidegger's most extensive treatment of the metaphysics of production is to be found, not in the first half of the Sein und Zeit, but in the discussion of the second thesis about being in the 1927 lectures entitled Grundprobleme der Phänomenologie. There Heidegger traces the medieval distinction between essence and existence to the metaphysics of production, the basic concepts of which are a legacy of Plato and Aristotle (see, for example, Heidegger 1975: 149f, 154, 156). Heidegger is unambiguously critical, not simply of this metaphysical heritage, but of its failure to see the extent to which it is the stepchild of a conception of production: "But the interpretation of the being of beings as something produced, does it not still contain an unbearable onesidedness within itself? Can every entity be conceived as produced and can the concepts of being be gathered and fixed with respect to the behavior of producing? Not everything of which we say 'it is' is brought into existence by productive existence" (Heidegger 1975: 162). In this connection, while emphasizing the "incompleteness and indefiniteness of ancient ontology," Heidegger proceeds to call into question the notion that productive behavior could have even been the "guiding horizon" for Greek ontology (Heidegger My hunch is that this treatment, suitably reconsidered, 1975: 156, 163). appropriated, and integrated with Heidegger's appropriation of Aristotle's notion of phronesis, could prove complementary to some of Feenberg's basic insights.

Techné 9.3 Spring 2006 Dahlstrom, Comments on *Heidegger and Marcuse*/ 55 But it at least corroborates, I think, first, the complexity of Heidegger's early attitude toward classical Greek thought, precisely on the issue of its legacy, mistaken or not, as a metaphysics of production and, second, the need for more work to come to grips with this complexity.

There are other bothersome characterizations of Heidegger's thought, four of which deserve explicit mention. First, although it is true that Heidegger in 1925 gives mixed signals about the phenomenological reduction, he is excoriating it a year later. The way in which he sets aside the disciplines of psychology, anthropology, and biology at the outset of Sein und Zeit bears only a faint resemblance to what Husserl understood by a reduction aimed, not at facilitating a self-explication of being-here (Da-sein), but at securing a residuum of consciousness (Bewußt-sein). Accordingly, Feenberg's talk of Heidegger's project in these phenomenological terms (ix, 16) is dangerously misleading. Second, Feenberg apparently sees no point in Heidegger's insistence on distinguishing existential analysis from philosophical anthropology. Fair enough but it would be nice to know why, given the considerable importance that Heidegger places on the distinction. Many of the themes that matter to Feenberg concern what Heidegger calls "philosophical anthropology," but that is also precisely what Heidegger insists is not his main concern. Third, Feenberg's remark that "the whole problematic of authenticity simply disappears from Heidegger's discourse" (xii) overlooks Heidegger's introduction of Ereignis, particularly in the Beiträge, and his insistence on the necessity of experiencing this appropriating event in order for Dasein and, ultimately, human beings to come into their own and, indeed, to achieve selfhood (Selbstheit). although the notion of essence does heavy-lifting in Feenberg's study, he takes no note of Heidegger's distinctive account of essences (see Vom Wesen der Wahrheit, the Beiträge, etc.). This oversight is a pity but not only because of the importance that Feenberg accords to essences in some sense (revealed in a techné, supposedly along the lines of Heidegger's interpretation of the Aristotelian notion). Closer consideration of Heidegger's thoughts on essences could help clarify what Heidegger, Marcuse, and Feenberg variously understand by 'essence" and perhaps even fortify some of Feenberg's theses.

II

But more important perhaps than issues of Heidegger-exegesis is Feenberg's thesis about the positive potential of Marcuse's thinking. Underlying his conception of this potential is a criticism of modern scientific rationality's

Techné 9.3 Spring 2006 Dahlstrom, Comments on Heidegger and Marcuse/ 56 alleged obliviousness to what is essential and a conception of a technology capable of disclosing what is essential. Thus, Feenberg declares that "abstention from any judgment as to what is accidental and what essential ... is the original violence of modern reason, which places it in the service of the status quo" (87). He apparently assumes that natural science does not contend with or even countenance essences and, hence, "a new technological logos must include a grasp of essences, and technology must be oriented toward perfecting rather than dominating its objects" (89). But is it true, as Feenberg apparently supposes, that science does not acknowledge and respect intrinsic qualities, essential features? One could argue, to the contrary, that science at its best is a self-correcting, institutional attempt, however imperfect, to determine in self-consciously historical terms what is essential, to revisit "ceteris paribus" assumptions, to minimize the role of bias, etc. Even Descartes worked with the supposition of essences and of essential and accidental differences. No doubt Feenberg has a different (perhaps more strongly axiological?) conception of essences but if so, his argument would be considerably strengthened not only by presenting and arguing for this distinctive conception more clearly, but also by demonstrating its efficacy, however diminished, within science.

In chapter five ("Aesthetic Redemption") he turns to the conviction driving Marcuse's later work: with the collapse of the revolutionary proletarian consciousness, the opposition to the reifications of one-dimensional thinking and its technologies must emerge from another source, namely, an aesthetically transformed experience. Given what Feenberg deftly calls the "Marcusian enigma," i.e., the fact that transformation cannot be based on completely new technical principles and cannot be a mere change of goals, Feenberg proposes a deflationary but realistic interpretation according to which "his concept of technological rationality cannot be identical with the formal concepts of efficiency and control, but must have a content as a socially specific pattern of goal orientation" (100). Feenberg provides an illuminating outline of how Marcuse's thinking converges with and contributes to contemporary technology studies, especially via Feenberg's notion of "technical codes" which help specify Marcuse's general contention that "life affirming values are actually internal to technology" (105).

As to what the "affirmation of life" means more concretely, Feenberg "only sketch[es] some points for reflection" (106). Though criticizing a mere sketch would be unfair, it raises questions. For instance, hearkening back once again to Heidegger's alleged interpretation of the Greek techné, he speaks repeatedly

inadequate to answer these questions. Nor does the elaboration of Marcuse's "fourfold," as we might dub his illuminating account of goods and their specific privations, suggest a way to answer this inadequacy. These remarks are merely a plea for clarification; below I return to a similar issue, framing it as a criticism.

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In the sixth and penultimate chapter ("The Ouestion Concerning Nature") Feenberg returns to the central thesis of his study, as he argues that Marcuse's late philosophy, precisely as it concerns technological, scientific, and phenomenological concepts of nature, involves both a recollection and a repression of basic Heideggerian themes. Recognizing that Marcuse's conception of an aestheticized technological rationality can only be sustained by a suitable conception of nature, a conception other than the natural sciences' concept of an objectified nature, Feenberg contends that Heidegger's recovery of Greek techné in his account of being-in-the-world provides Marcuse with the resources to develop the desired alternative. Feenberg attributes Marcuse's failed attempts in this regard to his reliance on the objectivistic (nonexistential) approaches of Marx and Freud. "The result is an incoherent attempt to transcend the opposition of biology and history from an objectivistic standpoint that supposes their separation" (122; see, too, 126). At the same time Feenberg finds in Marcuse's late work clear hints of his phenomenological roots that provide the key to the wanted conception of nature. What is necessary in this connection, Feenberg maintains, is a differentiation of natural scientific abstractions from concrete technical disciplines. "These disciplines respond to both the nature of lived experience and scientific nature, merging them seamlessly in a practical unity that guides action. In so doing, they embody social forces in technically valid form" (132).

The expression "technically valid form" in this last remark is unclear to me. In any case, however, the remark sounds utopian to a fault because it promises a resolution of what Feenberg himself otherwise calls an "irresolvable duality between experience and objectivity," a duality that reflects phenomenology's proposal of "a kind of double truth," i.e., the truth of lived experience and the truth of science (131f). These final pages of Feenberg's interesting study thus give mixed, if not contradictory signals. While the proposed phenomenological turn, on the one hand, cements a duality, claims are made for technology's capacity to overcome that duality, on the other. Each of these aspects of what I have here called "Feenberg's mixed signals" deserves separate comment.

As for the phenomenological turn, Feenberg's plea for taking a second look at Marcuse turns precisely on appreciating the possibilities of "an explicit phenomenological Marxism," one that presumably entails phenomenology's "methodological dualism." But as far as I can tell, the familiar claim that phenomenology-as a kind of philosophical avant-garde-is somehow more fundamental than science, that it understands something that science presupposes but cannot explain, is made but not justified. Moreover, it is hard to see how the phenomenologist, Marxist or not, keeps from painting herself into a familiar phenomenological corner, cutting herself off, thanks to the phenomenological reduction, from any means of elaborating the relation of the truths of her lived experience to those of science and, presumably, technology. I say "presumably" because Feenberg's contention is precisely that technology in some sense-and not just "a revised concept of technology" or a "new technology" (see 132, 136f) -reconciles the two truths. But at the very least more needs to be said to establish as much especially since it is not clear how a phenomenological understanding of technology, as proposed by Feenberg, does not duplicate the duality.

To be sure-and herein lies the other aspect of the mixed signals mentioned above-Feenberg affirms the possibility of an understanding and execution of concrete technical disciplines that resolves the poles of that dualism, indeed, "seamlessly," as he puts it. Interpreting the promise of Marcuse's work, he writes: "The underlying totality of human beings and things the Greeks discovered in the objective structure of the world now depends on the human being as the principle of world creation" (136). The practical realization of this totality is a matter of a "new technology based on aesthetically informed sensations [that] would respect humans and nature rather than destroying them" (137). The notion is fortified by what he takes to be Heidegger's appropriation of Greek techné, discussed above. Analogously, in the course of elaborating

Techné 9.3 Spring 2006 Dahlstrom, Comments on *Heidegger and Marcusel* 59 Marcuse's "innovative approach to the politics of technology," Feenberg touts a so-called "progressive [in contrast to reactionary] aestheticization of politics" (95). As he puts it: "Once metaphysics and tradition are ruled out of order, it is only through the imaginative grasp of reality that reason can go beyond mere cataloguing and quantifying of objects toward an appreciation of their essential truth. Reflection on aesthetic experience supports a type of judgment that can identify the significant 'Form' of reality, distinguishing essence from accident, higher potentiality from limited empirical existence" (97).

The references to aesthetics here and elsewhere are admittedly programmatic, yet Feenberg repeatedly finds it congenial to invoke, as noted above, a conception of harmony in these connections. Feenberg apparently subscribes to the notion that the Greek world, for all its subjugations and "narrowness" from a modern perspective, is in some sense "the lost Eden of reason" (136; see also 87f). These sorts of appeals to aesthetics strike me, however, as not only nostalgic but dubious. The phenomenological corner into which we seem to have been painted earlier turns out to be an aesthetic corner, somehow painted with pleasing colors, to be sure, but pleasing to whom? In plainer language: if there are any constraints on the heralded imaginative reason in this connection, it is difficult to see where they would come from.

In this regard, the iteration of the term 'harmony' throughout Feenberg's study is tellingly misleading, given its jointly aesthetic and ethical connotations, much like *kalos* as the Greeks' term for the beautiful and the fine. For Feenberg's Marcuse and perhaps Feenberg himself proposes a notion of the aesthetic dimension that displaces the ethical. (As an aside, it bears noting that Schiller at least formulates a rudimentary ethical theory within his plea for an aesthetic education of mankind.) Aesthetics and not ethics, we are told, "would support a constructive engagement with political and technical possibilities" (137; see, too, 89, 95, 97: "beauty is the symbol of the good"). Feenberg contends that the miracle of the New Left was "the emergence of a sensibility adequate to the real horror and possibilities" of the world at that historical juncture (138). Yet, as the construction of these sentences themselves suggest, the sort of aesthetic possibilities mentioned depend upon criteria of what is constructive and what is horrifying; it does not supply them.

Of course, one might argue that, despite Heidegger's best efforts to dispel the notion, he remains an aesthetic thinker and that Feenberg's Marcuse-project is continuous with the spirit of Heidegger's subordination of ethical considerations

Techné 9.3 Spring 2006 Dahlstrom, Comments on *Heidegger and Marcuse*/ 60 in his thought. I am less sympathetic to the former argument since I think that the case for the aestheticism of Heidegger's philosophy after the turn is overly tendentious. From Heidegger's perspective, appeals to the primacy of aesthetics—in contrast to some art—merely cement the misguided pretensions to world-subjugation by modernity, in the form of both its subject-centered philosophies and its technology. However, I would agree that there is an important way in which Marcuse remains faithful to Heidegger by subordinating ethics, though this agreement is, in my view, to the detriment of both thinkers.

It is interesting in this connection to note that Heidegger, at the conclusion of his first Marburg lectures of 1923, distinguishes two needed avenues of research and does so in Aristotelian terms. He explains that the aim of those lectures has been to pursue the first avenue of research, namely, the theme of truth (alethes) and its connection to the knower as a caring existence, i.e., a way a human being is. He then observes: "A far more important stretch of research refers to the agathon" (Heidegger 1996: 278). Heidegger follows this observation by noting how both lines of research need to be conducted anew within the context of existence. Yet, it is striking that there is no evidence of him pursuing that "far more important stretch of research," at least by name or under that description, during this period. Critical examination of the true and not the good dominates both Heidegger's existential analyses and his studies of Aristotle throughout the 1920s, even arguably when the subject turns to intellectual virtues. Herein perhaps lies a clue to a central deficiency of Heidegger's philosophical approach and that of Marcuse, his student. That deficiency is not simply that he never returned to the question of the agathos, at least not in anything like the systematic way that he addressed aletheia, but that he saw fit to separate the two avenues of research at all.

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¹ Portions of this essay can be found in my review of Feenberg's book in <u>Notre Dame Philosophical Reviews</u> (http://ndpr.nd.edu), entered January 2, 2006. I want to thank John Farnum, Andrew Feenberg, and Robert Scharff for their helpful, critical discussion of the issues raised in this paper.

² All references are to Feenberg 2005, unless otherwise noted.

Feenberg on Marcuse: "Redeeming" Technological Culture Robert C. Scharff

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Introduction

In his new book, *Heidegger and Marcuse*, Andrew Feenberg argues for a critical assessment of contemporary technological culture, interpreted through the prism of Marcuse's phenomenological Marxism. To characterize Feenberg's book this way already points toward several of its valuable and provocative features—among them, the very idea of reviving a "phenomenological" Marxism, of giving Heidegger a positive role in this project and claiming that even the late Marcuse is indebted to him, and of placing the evaluation of technology, not political economy, at the center of radical critical theory. In addition to being a provocative work in its own right, Feenberg's arguments also shed light from a new angle on his philosophy of technology, and all of this should be of great interest to current debates.

In my view, Feenberg is best seen here as advancing a three-part thesis. First, he explains what the young Marcuse got from the early Heidegger. He acknowledges, of course, the influence of *Being and Time*, but in a much more original vein, he argues that Marcuse was at least as impressed by Heidegger's earlier lecture courses on Aristotle and the Greek notion of techné. From these two Heideggerian sources, says Feenberg, Marcuse developed a phenomenological conception of the priority of practical/productive life that might ground his neo-Marxist critique of modern scientism and all its social, political, and economic consequences.

The second part of Feenberg's thesis is that in his eventual disillusion with Heidegger, Marcuse turned to Hegel—where he found the imagery of a dialectical logic of life that recontexualizes the whole phenomenological-Marxist project into one involving (i) the experience of technoscientific alienation, (ii) its radical political critique, and (iii) a vision of a humanized transformation of technoscientific culture. In other words, in the language of Feenberg's subtitle, Marcuse found in Hegel a model for conceptualizing the movement from life as a dehumanizing "catastrophe" to its humanized "redemption."

The obvious question, of course, is: What principles can guide this movement

Scharff, "Redeeming" Technological Culture/63 Techné 9.3 Spring 2006 toward humanization, and how do we find them? And so there is a third part to the story. Marcuse, says Feenberg, grounded his utopian vision of redemption in an appeal to lived experience. It is true that many of Marcuse's arguments from experience-for example, regarding class struggle, Freudian eros, and New Left sensibility-all seem ultimately to fail. Yet in large measure, this is because they all depended less on experience than they did on someone's theory about experience. Feenberg's purpose in revisiting this familiar territory is original. In his view, the most important outcome of all Marcuse's arguments from experience is that he worked his way toward the idea of a revolutionary "aesthetic dimension," already growing in contemporary experience, that might function critically in the technoscientific world at large with the same spirit of radical experimentalism as the modern avant-garde movements in art. Here, for example. Feenberg finds an explanation for Marcuse's seemingly naïve embrace of the New Left student movements of the 1960s. Where everyone else saw merely an immature display of radical opinions and unrealistic reform demands, Marcuse saw

the emergence of "new needs" and a "new sensibility"...[that] operated at a more basic level than politics, [i.e.,] at the level of the form of experience itself...in which the aesthetic qualities of objects are revealed immediately to [a more liberated and receptive] sensation (Feenberg 2005, 94).²

With the entry of this "aesthetic *Lebenswelt*" into modern bourgeois life, it becomes possible to move beyond the impasse left to us by totalizing pessimists like Heidegger.

With this remark about Heidegger, Feenberg's commentary on Marcuse joins up with his own critical theory of technology. When it comes to our technoscientific culture, he says, we do not face a forced option. It is not necessary for us to either continue to endure the nightmare of further dehumanization or join Heidegger in the mystical idea of waiting for a new god. There is a third possibility--namely, to develop a "new [and more democratic] form of technological rationality." Here, then, is the book's punch line: For Feenberg, Marcuse was right: "The oppressive features of technological society are not due to *excessive* materialism and technicism....[R]ather [they lie] in the *arrest* of materialism and technological rationality" in a dehumanizing and undemocratic form (100, cf. 97). What Heidegger diagnoses quite well is the allegedly neutral and purely instrumental kind of technological rationality under which we now suffer. What

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/64 he misses is the possibility of transforming it into a more holistic, politicized, and ontologically sensitive rationality—a rationality that would begin with the question of what technology is making of us and end with the open question of what we can make of it (99). As Feenberg argues elsewhere, technology is never neutral. Every technology has an internal "code"—a normativity that determines what it is, what it does, under what conditions, to what things and what people. There is no reason why our currently exploitive, dehumanizing, instrumentalistically coded technologies cannot be subjected to "democratic interventions" that would make them more life affirming (106-108).

In the present book, Feenberg tells us that he thinks Marcuse was already working toward precisely this position. The reason why so many commentators have missed this is that Marcuse's explicit efforts to distance himself from Heidegger got in the way of his implicit and sure-footed sense that Heidegger was right to demand a phenomenological treatment for experiential matters. "What confuses us in reading Marcuse today," he says, "is his reliance on objectivistic notions drawn from Marx and Freud to signify a dimension of human life he interprets in existential terms" (121). If the emancipation envisioned by critical theory is ever to be accomplished, critical theory cannot do without a phenomenological account of experience.

I think it is fair to say that about Feenberg's thesis, I am quite literally of two minds. On the one hand, I share his idea that technologies are never neutral, that no objectivistic account of technological culture can help us understand either what it is or how it might be transformed, that totalizing accounts of technological oppression are unnecessarily abstract and pessimistic, and that close-up accounts of how technological culture currently operates—even if they are ostensibly phenomenological and reformist—are often too willing to settle for changes which, in the deepest existential sense, change nothing. Finally, I am sympathetic to both Feenberg's appeal to lived experience as the source of genuine critique and to his repeated calls for more democratic and humanizing transformations of present culture. On the other hand, I disagree with almost everything he says—in his own name or Marcuse's—about the philosophical machinery in terms of which these issues should be treated. I think that in the end, existential Marxists, Lukácsian Hegelians, and critical theorists are often excellent diagnosticians but much less helpful when it comes to treatment.

In what follows, I try to explain this claim by discussing two general features of Feenberg's book in some detail. First, I examine his revisionist reading of

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/65 Marcuse, especially his analysis of what it is in the early Heidegger that still seems to make its presence felt long after Marcuse has explicitly rejected him. Second, I consider Feenberg's defense of the emancipatory potential of what he calls an emerging, radically experimental "aesthetic dimension" in contemporary life. To state my conclusion in advance, I believe that the early Heidegger could in principle never have prioritized practice over theory in the way that Marcuse and Feenberg assume that *Being and Time* does. Moreover, to understand why he could not have done this is to see the reason why Heidegger would necessarily also reject both the utopian impulse Feenberg praises in Marcuse and also the sort of pessimistic totalizing of which Feenberg accuses Heidegger.

I. Marcuse on the Priority of the Practical

Turning to my first point, Feenberg's book seems to me to be an importantly revisionist work of scholarship. According to the standard view, a disillusioned Marcuse gave up his early attraction for Heidegger in favor of a critical theory of modern Western society that is based instead on appropriations of Hegel, Lukács, and the early Marx. To Feenberg, however, this interpretation of Marcuse suffers from both superficial scholarship and political bias. He argues that if we want to profit from Marcuse's teachings, we must pay less attention to Marcuse's self-interpretation and more attention to what we actually find in his writings, and we should not let our dislike of Heidegger's politics kick in before we read what he has to say in his earlier works on about Greek techné and being-in-the-world, and in his later works about modern technology. Feenberg thinks that if we follow this advice, we will find that Marcuse never abandoned the idea that Heidegger's Being and Time—and especially its putting praxis ahead of theory/ideology—provides the key to an updated version of the early Marx's critique of experience in a capitalist world.

What, then, does the young Marcuse get from the early Heidegger? There is some interpretive difficulty here. Much of what Feenberg finds valuable in the early Heidegger is expressed in his own voice, not developed in terms of Marcuse's texts. Marcuse's 1930 doctoral dissertation on Hegel's ontology, which is said to be "couched in Heideggerian terms" (4), is presented as a neo-Marxist reinterpretation, not a Heideggerian critique of Hegel's concept of life in history (19). At one point, Feenberg even calls his interpretation of the influence of Heidegger and Lukács on the dissertation "conjectural" (50). Moreover, Feenberg gives no chronology of Marcuse's study of Heidegger, so it is difficult to know which works influenced him at what time. Nevertheless, if these

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/66 difficulties might be serious hindrances on other occasions, for my purposes here I will simply assume that Feenberg's Heidegger is also Marcuse's.

Of one thing, however, we can be certain. The Heidegger known to Marcuse is not just the Heidegger of Being and Time, but the Heidegger who had already been a very creative appropriator of Aristotle for close to a decade. Others have stressed Heidegger's working out his notion of being-in-the-world as care in light of an interpretation of phronésis, and early commentators follow Gadamer in focusing on this.⁴ Feenberg points out, however, that the ontological significance of Aristotle's notion of techné as a kind of production (poiésis) is also crucial to Heidegger, and not just in his later thinking specifically about technology. Citing the famous "Aristotle-Introduction" of 1922, of which Marcuse had a transcript, Feenberg stresses the fact that when Heidegger raises the question about the being of human being, he turns to Aristotle's Nichomachean Ethics, not to the physical or metaphysical works. And if we look in the *Ethics* for Aristotle's basic sense of human be-ing—i.e., "being in life,' as [directly] experienced and interpreted"—we see that he understands human beings, not primarily as a kind of object placed in a world full of various kinds of theoretically knowable objects, but as an entity that produces, makes, and uses things.⁵ In Heidegger's early lectures, says Feenberg, Aristotle "is transformed into an existential ontologist avant la lettre" (4). Here we find the roots of Heidegger's phenomenology of human existence, and-in spite of the standard story and Marcuse's own later denials-two features of this phenomenology left a permanent mark on Marcuse's thinking. For him, after Heidegger, we can take as established the ontological priority of practical and productive life; and given that priority, we can begin to transform Heidegger's own hopelessly abstract and ultimately unsuccessful efforts to critically confront the currently inauthentic condition of this life-by turning his notion of authenticity into the Marxistinspired idea of a "free appropriation of the human essence in a socially concrete form through the liberation of labor" (xiii).

Feenberg's treatment of *Being and Time* here is, I think, somewhat more generous that in his other works. Heidegger's notion of being-in-the-world-specifically his argument that existence has more than one mode, that the mode of theoretical engagement with objects is not basic, that there is a deep connection between *Being and Time*'s analysis of practical affairs and the later analysis of technology, that careful description of the nuances and varieties of experiences people actually have is a better source of existential ontology than natural and social scientific theory–all of these features of Heidegger's

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/67 Daseinsanalysis are emphasized. Yet there is one glaring omission in Feenberg's interpretation. He never asks why Heidegger develops a Daseinsanalysis in the first place. Like other philosophers in the tradition of critical theory, Feenberg sees Heidegger's analysis primarily as useful to his own general project of sociopolitical emancipation, but he believes that without a link to some such project, this analysis leads only to bad ideology and fuzzy romanticism. I read Heidegger very differently, as I will briefly try to explain. Yet I ask indulgence for this. I am not interested in simply presenting better Heidegger. I want to argue that, by ignoring Heidegger's explanation of what the Daseinsanalysis is for, Feenberg has avoided facing several deeply problematic features of his own, and I assume also Marcuse's, position.

Famously, Heidegger says that his analysis of Dasein in Being and Time is a "preparatory" project—one that is required if he is to turn fruitfully to the question of the meaning of Being. As we now know, this idea of "preparation" was nourished by Heidegger's work over the previous decade, and especially by his perception of a central flaw in most of the philosophical debates he saw around him. He was, of course, deeply sympathetic to the anti-positivist and antinaturalist arguments of those like Dilthey, Husserl, and to a lesser extent Kierkegaard, Jaspers, and others, all of whom spoke for some aspect of human experience that seemed ill-served by the reigning objectivist model of knowledge derived from mathematics and natural science. Yet Heidegger complained that, for all their promising descriptions of this or that aspect of what came to be called the Lebenswelt, none these otherwise admirable thinkers were ultimately able to give a satisfactory account of either how their descriptions fit together with the causal explanations of natural science or how we should understand the inadequacy of those traditional epistemologies that tend to elevate the standpoint of natural science to the standpoint of philosophy itself.

In other words, for Heidegger in the early 1920s, the real problem with, say, Dilthey's embrace of the standpoint of historical life, or Husserl's phenomenology, or Jaspers' philosophy of Existenz does not lie in what they attempt to *do*. It lies in their still very traditional understanding of *who does it*. The Dilthey who sees the need for a "Critique of Historical Reason" is still thinking like a kind of anti-positivist positivist, looking for a second sort of method, concerned with a second kind of objectivity, for a second set of sciences. The Husserl who speaks of the need for a radically new philosophical beginning still conceives himself as the founder of a movement, and still describes phenomenology as the ultimate positivism, the true guardian of the Western

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/68 "scientific" ideal, and the source of the one, really rigorous method that finally gets to things as they really are. Even Jaspers, who says he wants nothing more than to observe with the greatest possible sensitivity "what life is," fails to make his own interpretive standpoint a part of his inquiry—with the result that his often insightful "observations" of life's experiences are expressed in the old objectivist language of subject and object, method and substance, the knowable and the ineffable, and so on.⁶

Heidegger is especially put off by the traditionalism of such philosophical self-descriptions because they seem to him to work at cross purposes with what these thinkers are trying to do. Many of Dilthey's, Husserl's, and Jaspers' actual "phenomenological" studies are clearly superior to those of the various positivists, neo-Kantians, and traditional metaphysicians of the day. Yet when it comes to the question of what it is to "be" a philosopher, their views and those of their opponents are strikingly similar. They all claim to speak for scientists who know not what they do; they all defend essential categories and principles not relative to place and time; and they all remain convinced that first we settle what *science* knows and then we figure out what else there is. In short, Heidegger finds himself surrounded by philosophers who—whether positivist, neo-Kantian, traditionally metaphysical, life-oriented, phenomenological, or existential—still speak as if they were modern reflective subjects—idealized meta-scientists at "third-person" remove from the circumstances not only of scientific practice, but of culture, society, and history.

It is especially Dilthey's investigations of historical life that taught Heidegger to find deep irony here. See all these detached and meta-scientific thinkers, quarreling among themselves about historical human life...in disregard of their own historicity! The proper conclusion is obvious—and double. Ultimately, we need to raise again—and in a much more pluralistic way than the dominant Western tradition succeeds in doing—the ontological question of just what it means for something to *be* natural, or vital, or psychic, or beautiful, or numerical, or object-like. Yet before we plunge into any more explorations of what there is and how we relate to it, there must be a preliminary analysis, as Heidegger begins to say in the early 1920s, of what it means to "be" a thoroughly contextualized and historically determinate philosophical questioner of anything.

Here, then, is the importance of Dilthey's legacy for *Being and Time*. *In the present situation*, to consider the possibility of two kinds of science, it is not enough to talk about two methods for two subject matters, as Dilthey conceives

it. Rather, if we trace all of his very traditionally described questions about methods and subject matters back to their experiential sources, we see that the ultimate question—the one that should actually be put first—is How is it possible to treat any of these issues phenomenologically in a technoscientifically understood age?⁸ And for Heidegger, this point is not just about Dilthey; it is utterly generalizable. It is a matter of what Irigaray describes as existential atmospherics. In our era's general ontological atmosphere—a space in which everything including humans tends to be pre-understood as enframed and at our disposal—we cannot just resolve to describe better whatever experience is currently marginalized. Whether this experience concerns sexual difference—as it does for Irigaray—or a second method of inquiry, or kind of science, or kind of object-as it does for Dilthey and Husserl and Jaspers-or concerns a critical rather than conformist take on technology—as it does for Marcuse and Feenberg—in all of these cases, we must begin by determining why and how these phenomena are handed down to us precisely as obscured and excluded, and then retrieve them precisely as something obscured and excluded. ¹⁰ For the sake of articulating our own ontological possibilities—all of them, not just those we now most readily actualize—we must learn, Heidegger says, what it means to "be" historical. 11

It is the dominant, enframing, technoscientific sense of what makes something real for us—this basic ontological "eventuation" that implicates both ourselves and everything we encounter—to which even successful "phenomenologists" still too often give official recognition. Objectivism still feels like the only philosophically respectable attitude. Hence, when Heidegger announces near the beginning of *Being and Time* that he regards knowing (Erkennen) as a "founded mode" of being-in-the-world, he is not just identifying the mode of existence he wants to demote to derivative status so that he can prioritize the mode of making and tool-handling in its place. He is attacking the everywhere still dominant objectivist understanding of everything—an understanding that experience increasingly tells us does not deserve its hegemony, the same understanding that ruins Husserl's phenomenology by convincing him to correlate everything with a *methodologically* purified self-*consciousness*, the same understanding that even today encourages logical empiricists and their analytic progeny to arrogantly suppose that no phenomenon can be left to the phenomenologists.

Heidegger's "preliminary" question, then, is how to *become* phenomenological about anything—science included—in technoscientific times. And for him, the way to undermine the philosophical hegemony of theoretical being-in-the-world

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/70 is to find beneath it another mode of being-in-the-world so different in its make-up that the contrast between the two modes will prompt us to ask, what then "is" it to be-in-the-world, such that existence has legitimately two and possibly many more forms? However, this is a question that Marcuse, and with him Feenberg—in their eagerness to enrich Marxism with a better take on human existence—do not ask. Instead they simply reverse the priority of the theoretical and practical, in light of the requirements of a socio-political project they already embrace. I see problems with this "existentialist" move. In the space remaining, let me try to identify three of them. For the sake of brevity, I shall comment only on what Feenberg seems to say in his own voice or on behalf of both himself and Marcuse.

II. The Priority of the Practical? Problem One

On the issue of how to make room for phenomenology in a technoscientific world, Feenberg argues for phenomenology's first-person viewpoint as deserving priority over the third-person viewpoint of science (130). Of course, he is right as Jaspers was right—to want access to such a viewpoint. For Heidegger, however, to think of it as "first-person" is a sure sign that Feenberg has not fully appreciated the urgency of the ontological question of what it is to "be" a philosopher "in" a technoscientific age. Consider how it sounds—in the current philosophical atmosphere—to defend the first-person perspective of lived experience—not only in its own right, but as the ontological basis of "all the concepts through which we understand objective reality." How persuasive is this defense likely to be? How does it sound to be told on first-person authority that although "there is no better explanation of objective things than science" gives us, "at the most basic level, the problem is understanding the presence of a meaningful world, and that is something science presupposes but cannot explain (131, my emphasis)? Why isn't the proper response to this, "...can't explain yet"? Why should phenomenology have the right to limit "the legitimacy and truth of science"? The question ignored here is how a first-person argument can possibly gain traction in a world of third-person understanding, and not be, in Feenberg's graphic phrase, "instantaneously devalu[ed] at the hands of scientific naturalism" (131)?

Feenberg's critique of objectivism resembles Anglo-American critiques like those of Taylor, Putnam, Rorty, and Nagel. Crudely put, they all say something like the following. There is nothing wrong with an objective, third-person point

Scharff, "Redeeming" Technological Culture/71 Techné 9.3 Spring 2006 of view as such. Its adherents are harmless enough—as long as they are just methodologically resolved to "have" a world and only think of its "reality" in cognitively represented external confrontations. A problem arises only when this methodological resolve gets philosophically privileged.¹² Heidegger, however, shows us why this line of reasoning won't work. One cannot simply "make room" for a non-scientific perspective in an objectivistically understood world because objectivism has never been merely methodological. Indeed it has never been what it conceives itself to be at all. It is neither neutral nor valueless, nor is it a product of any decision to look at things one way rather than another. Indeed, it is not even modern in origin. It is true, as Feenberg says, that in its current form, objectivism does express and formalize the dominant mood of developed, technoscientific life in the West. But for Heidegger, it only does so because it understands science and its applications to be a kind of global fulfillment of the quest for timeless cosmic knowledge which inspired Western philosophy from its start. This is why it has remained so easy—even after the official demise of positivism—to think of philosophy as "ending" in the analysis and defense of technoscientifically informed knowing and acting, and why the world tends to seem most "real" insofar as it is "for" such knowing and acting.

Feenberg is therefore quite wrong to see the early Heidegger as using Aristotle's idea of techné to juxtapose the alienating modern metaphysics of instrumental rationality against an ancient "productivist" ontology, in which the "belongingness of human beings and being in the making of worlds" is still sustained (40). On the contrary, when the young Heidegger returns to Aristotle's Ethics and Rhetoric, he sees himself as retrieving something the Greeks themselves suppressed "onto-theologically"—by conceiving the productivity of human beings against the background of a superior cosmological version of the same process. It may be true that the Greeks did not yet think of technical action as the mere imposition of subjective intention on raw material; but this does not mean that they adhered to the reversed priority of practical and theoretical normativity that Feenberg wants. For Heidegger, a return to Greek metaphysics would merely be a return to an earlier version of that representationalist ontology of constant presence which has dominated the entire tradition. There never was, for Heidegger, what Feenberg calls a "lost Eden of reason" (136). What there might still be is a recovery of the phenomenological spirit one can see both at work in but also suppressed by the ancients. Yet to achieve such a recovery, the first order of business is to ask how we must "be," as ontological inquirers, such that the whole battle is not lost in advance by letting technoscientific understanding force upon us the undeserved authority of "third-person" claims. A

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/72 "recovery" of Heidegger's kind—what he calls a genuine "repetition"—of Aristotle on practical life might be possible. But I will try to explain why I think Heidegger has a more promising conception of this recovery than Feenberg by turning to my second problem.

III. A Transcendent Aesthetic Vision? Problem Two

Feenberg is surely right to reject as "incoherent" any attempt to "reconcile" technological rationality and practical understanding from above—as if they were two "spheres" lying side by side, surveyed by an all-seeing epistemological mind (122). It might be tempting to assume that having made this point, Feenberg then uses his idea of a revolutionary aesthetics to develop a reconciliation from within life rather than outside of it. But if I read him correctly, this is not what he does. Instead, he appears to place another, still more "mysterious" dualism, inside the familiar one between everyday experience and scientific objectivity—a dualism he calls "the irresolvable duality between experience and objectivity in all its forms" (my emphasis, 132). 13 By "objectivity in all its forms," he means not just the objectivity of natural science, but also the objectivity of what he calls "the concrete technical disciplines." I am not sure what these are, but he describes them as disciplines that "respond to both the nature of lived experiences and scientific nature, merging them seamlessly in a practical unity that guides action. In so doing, they embody social forces in technically valid forms." This means, I take it, that these disciplines are to be guided by neo-Marxist critical theory.

Let me say first that if I am reading Feenberg correctly, his conception of critical social theory represents at least in one respect an important advance over many other versions. Early figures like Adorno and Horkheimer are often accused of leaving no room for a politics of hope—if not on purpose then by implicit principle. Yet even Habermas, who does affirm the possibility of such a politics, still holds that everyday life is too systematically distorted to provide grounds for its own diagnosis. Hence, to clear a space for social progress, he defends an analogy between the authoritative distance of psychoanalysts from patients and critical theorists from everyday life. The famous problem, of course, is that this leaves the source and legitimation of critical theory itself problematic. Here, I think, Feenberg moves in a more promising direction. For like Marcuse, he argues that experience can in fact be a guide for social transformation—in his language, a potential source of redemption as much as it is now the locus of catastrophe. Is

To make this case, Feenberg distinguishes between two kinds, or perhaps better, two dimensions of phenomenology—one more familiar and Husserlian, the other less appreciated and, he claims, at least quasi-Heideggerian. The more familiar phenomenology provides non-naturalistic accounts of perception, embodiment, etc. The other phenomenology—what Feenberg sometimes calls "a phenomenology of the aesthetic Lebenswelt"—has revolutionary potential. Using Heidegger to argue for the ontological priority of human practical productivity, Feenberg depicts this second phenomenology as providing not just an account of productivity in its usual technoscientific forms, but also an imaginative vision of a sort of productivity that could activate existential possibilities that are ignored or suppressed under current techoscientistic conditions. In short, descriptive phenomenology is not enough. For Feenberg, only the second kind of phenomenology is able to "explain the anticipated transcendence" of today's technoscientific culture.

My problem here is with Feenberg's conception of transcendence. I agree that there is a long-standing theory of art which depicts the imagination as flying free from the entanglements of ordinary perception to see things in an utterly creative and extra-familiar way. I find the notions of freedom, creativity, and imagination in this theory of art problematic enough—sounding, as they all do, like the obverse of the notions of causal determination, law-like behavior, and sense perception that go with the scientistic outlook this aesthetic theory opposes. But Feenberg goes on to build a whole political theory on an extrapolated version of this theory—and to do so without examining critically either the theory itself or the warrant for expanding it. Here, I see again an incomplete consideration of the question of who is doing the philosophizing. "In a liberated society," says Feenberg, the "sensuous power of the imagination" will "become 'productive' in reality, like the imagination of the artistic creator, and would guide technical practice" (97). I can imagine unencumbered minds making such pronouncements about sensuous power, but never concrete, socio-historical determinate thinkers, living "in the midst" of things in an instrumentally technoscientific world.

It is on the basis of confident pronouncements like these, moreover, that Feenberg's makes his rejoinder to Heidegger's alleged "pessimism." I refuse to settle, he says, for a Heideggerian "reflect[ion] on the catastrophe of technology"; and I follow Marcuse in moving beyond this "earnest contemplation of the present to project a concrete utopia than can redeem the technological society...by formulating transcending demands and realizing the dream of

Scharff, "Redeeming" Technological Culture/74 Techné 9.3 Spring 2006 freedom (88). Feenberg says he rejects any sort of objectivist position "outside" everyday affairs. Yet what of revolutionary aestheticism? From what perspective does it develop its "vision"? Somewhere between his claim that experience itself can be a source of inspiration for authentic possibilities and his defense of the power of the aesthetic imagination, Feenberg seems to step back from phenomenology in order to become a "utopian" visionary who "projects" a whole life of "liberated" possibilities. In this, he sees himself as Heidegger's opponent as someone who sees "beyond" the technoscientific pall that now covers everyday life. Yet this opposition seems not only to be a regression to a new sort of objectivism, but also entirely unnecessary. In the end, Feenberg seems to hold—in the very traditional language of catastrophe and redemption, and with a very traditional understanding of philosophy that draws strength for life from outside of life—that without his utopian vision, we have no hope of genuine existential transformation. Heidegger does not agree—which brings me to my third problem with Feenberg's Heidegger interpretation.

IV. Heidegger's Theistic "Pessimism"? Problem Three

So far, I have criticized Feenberg for failing to explain why his utopian optimism is any more justified than a Heideggerian dystopian pessimism. I now want to add that, whatever the status of his own vision, Feenberg's analysis of Heidegger's account is flawed, and this constitutes a missed opportunity.

For Feenberg, Heidegger's analysis of the current hegemony of the technoscientific way of being and understanding is justified. Yet it is one thing to complain about technoscientific excess. It is another to spin out "totalizing" condemnations of technology itself, and this is what Feenberg thinks Heidegger has done by dropping the promising but flawed analysis of everyday life in *Being and Time* for the sake of a later theory of technology's "essence." Now I agree that there should be more concrete phenomenologies of technoscientific practice—especially if, as in Feenberg's case, this includes a critical analysis of the socio-political injustices endemic to it. Still more is this so if he also discourages speculative, dystopian meta-narratives in the process. But Heidegger's account of the rise and current dominance of technoscience is not one of these meta-narratives.

Let me put my point linguistically. Feenberg, it seems to me, still thinks in the language of representative and universalizing concepts. Consider his account of

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/75 the dominant sort of technoscientific rationality. There is a truth, he says, that it cannot accept—namely, the truth that "what is is fraught with tension" between its empirical reality and all of its "potentialities" that are not variations on given empirical themes (87). Technoscientific rationality, he says, "sacrifices" this truth." It rejects

all reference to essence and potentiality...[and] admits no tension between true and false being....The empirically observed thing is the only reality, and truth and falsehood apply only to propositions about it....Modern reason flattens out the difference between essential potentialities of things and merely subjective desires....Arbitrarily chosen values are placed on the same plane as essences and no ontological or normative privilege attaches to the latter (87).

Passages like this—and Feenberg's book is full of them—can be read in two entirely different ways, depending upon what one thinks the language of the passage is doing. Ironically, if one follows the way Feenberg treats such passages, it would seem that to him, they are precisely a collection of true propositions in the modern rational sense. For if it is simply "true" that technoscientific practice affirms only an empirical reality and "flattens out" normativity into subjective choice, it is small wonder that immediately after concluding this "Marcusian recapitulation" of Heidegger, Feenberg hastens to "project a concrete utopia that can redeem the technological society" (88). Empirical language that "represents" catastrophe and transcendental language that "represents" redemption fit seamlessly together—as they traditionally, Heidegger would say "metaphysically," always have.

For Heidegger, however, such passages can be interpreted very differently if they are heard as ontological characterizations of how technoscience "occurs" and "gives" reality to us. This gift has, he argues, a double structure—such that it tends to make everything *empirically present* in a technoscientific way that, at the same time, is everywhere experienced as *existentially intrusive and unsatisfying*.¹⁷ Heidegger, then, wants his descriptions of technoscientific life to be understood as what he used to call "formal indications"—as both descriptions of what is correctly said of today's technoscientific practices and also of what must already be understood in order for us to "be" uncomfortably correct. Hence, if Heidegger were to say what Feenberg does in the passage just quoted, we should listen with the awareness that the very point of the passage—that this is how things *unsatisfactorily* "are"—will be missed if we assume our

Techné 9.3 Spring 2006 Scharff, "Redeeming" Technological Culture/76 experiences can be fully articulated in factual propositions, plus subjective value-preferences—or utopian alternative visions—tacked on.

Here, I see the most serious difficulty with Feenberg's Heidegger interpretation. Feenberg labels Heidegger's position pessimistic, but to me it seems more optimistic than Feenberg's own. For if one asks Heidegger what grounds he has for criticizing technoscientific hegemony, he needs to look no further than current technoscientific experience—where the very having of disturbingly marginalized sorts of experience provides clues, in this very disturbance, for what is in need of greater and more appropriate articulation. With Feenberg, however, it is as if he ultimately loses faith in experience. In precisely the moment he asks, "What is to be done?", he reverts to the old idea that this can only be effectively answered from outside the situation in which the question arises.

My complaint, however, is not that Feenberg should simply be more Heideggerian. What bothers me is the questions Feenberg consequently never asks—or even mentions. For example, what makes him so sure that a life in which technology is "democratically" liberalized could ever be a life in which *all* of our concerns and activities receive their due? To raise this question, one need carry no brief for Heidegger. Absent from Feenberg's analysis are the voices of those philosophers of science, technology, ecology, and gender who might object to his apparent willingness to treat issues of knowledge, race, gender, class, and species *through* the critique of technoscience—and not as phenomena that, if given their due, might displace precisely Feenberg's critical priorities. And what about the outlook of phenomenological Marxism itself? How would Feenberg respond to other neo-Marxists who might appeal to the very same experienced world of work as he does, but in order to reject Feenberg's technological displacement of political economy as the central issue?

In short, why is an optimistic and democratized idea of technoscientific practice a better bet for the 21st century than a more suspicious, or differently focused consideration of the same worldly "site"? If Feenberg were to say the answer lies in contemporary experience, I would follow him. When he says it lies in a transcending, utopian projection of revolutionary aesthetic consciousness, I cannot.

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¹ Of Marx's original conception of the sources of revolt, Feenberg asks, "What happens when economic self-interest is no longer allied with critique but with conformism instead? At that point the revolutionary can turn to irrational sources of change such as nationalism or 'new gods,' as does Heidegger, or revise the concept of self-interest to enlarge its range beyond the economic sense it has in Marx" (Feenberg 2005, 137).

² All quotations in the body of this paper are from Feenberg 2005, unless otherwise noted.

³ "Without a phenomenological notion of being-in-the-world, [Marcuse] seems to be engaged in inflated rhetoric or, worse yet, a naïve metaphysical challenge to the modern scientific understanding of nature. It is clear that this was not his intent, but he failed to find a convincing way of expressing his intuition" (Feenberg 2005, 119).

⁴ See, e.g., Volpi 1994, 195-211; Kisiel 1993. 227-308; and Brogan 2005, where Thomas Sheehan's important Heidegger-Aristotle pieces are also cited, 207. Sadler 1996 is not especially reliable.

⁵ Feenberg (who misidentifies the lecture's date as 1923) cites Kisiel's close paraphrase in his *Genesis*. See the English translation of the Aristotle-Introduction in Heidegger 2002, esp. 126-28.

⁶ See, e.g., "Comments on Karl Jaspers' *Psychology of Worldviews*," in Heidegger 2002, esp. 97-102, and especially its last line: "If [Jaspers' findings] are to be capable of effectively stimulating and challenging contemporary philosophy, his method of mere observation must evolve into an 'infinite process' of radical questioning that *always includes itself in its questions and preserves itself in them*" (102, my emphasis). On Husserl, Scheler, and Dilthey, see, e.g., Heidegger 1985, 17, 108-119, thesis summarized, 128-31.

⁷ As I have argued elsewhere, a careful analysis of Heidegger's evaluations of Husserl and Dilthey reveals that it was his habit to criticize both Husserl's conception of phenomenology and his actual findings, but to criticize only Dilthey's self-conception and not his findings. See Scharff 1997, esp. 123-24. Regarding Dilthey's findings, Heidegger says that because they take their point of departure from the perspective of an "active involvement in historical life," rather than (as with Husserl) from the perspective of "a field of conscious intentionality," these findings are already phenomenological enough (Heidegger 1985, 117).

⁸ It is therefore incorrect to say, as Feenberg does, that Marcuse and Heidegger "go back to Dilthey to reevaluate [their] concept of life," such that there follows Marcuse's post Hegelian "enlargement of the subject" on the one hand, and Heidegger's Dasein in the mode of practical being-in-theworld, on the other (Feenberg 2005, 50). For Heidegger, Dilthey's descriptions of historical life lead above all to a critique of how one philosophizes, not just to an improved concept of what it is to be human entities.

- ⁹ I confess I am giving Heidegger credit here for something Irigaray denies to him. She argues that Heidegger, especially in his later ruminations on and "exclusive love of" earth, "forgets" to treat air with equal dignity. However, Irigaray then goes on to suggest throughout that air should be understood as what is cleared at the site of the clearing, what in numerous other images she identifies as what "is at the groundless foundation of metaphysics," which, when "recalled," is the "ruination of metaphysics" (Irigaray 1999, 5). It is impossible to read her first chapter without seeing (hearing? sensing?) Heidegger's late discussion of Ereignis between every line.
- ¹⁰ For this account of difference, I rely here especially on Irigaray 2002, 247-58.
- ¹¹ Heidegger 1989, 20 [cited from the bilingual edition, Heidegger 1992, 20]. Cf., Heidegger's description of hermeneutics, in this same period (SS 1923), as "the self interpretation of [Dasein's] facticity" (Heidegger 1999, 11-16).
- ¹² Numerous contemporary philosophers of science would, of course, also reject this argument because it implies a badly dated conception of natural science. One obvious alternative would be to do what feminist epistemologists and advocates of science studies who have been influenced by Heidegger do, namely, consider the natural sciences as themselves constituting a species of productive existence (in Heidegger's language, a mode of being-in-the-world) and then proceed to ask how it differs from and might be related to other modes such as artistic creation, socio-political action, democratic vs. instrumentalist technology.
- ¹³ All the quotations in this paragraph and the following one are from Feenberg 2005, 132.
- ¹⁴ E.g., when Habermas was challenged on precisely the issue of whether this transcendental reflection *on* life might from the beginning itself be "interest-laden," in spite of Habermas' confidence in its capacity to simply get at the way things are, he replied that he will some day "have to come back to that question" (Habermas 1982, 233). That day has never come.
- ¹⁵ I would read in this light Feenberg's distinction—which he claims to find in Marcuse—between truth that is "revealed" in experience vs. truth that is allegedly "proven" by experience (Feenberg 2005, 129). The implicit criticism here, e.g., of Habermas. is that he is still too wedded to the imagery of modernity to see that experience has a more powerful potential when it is not reductively regarded as simply the source of verifying ("legitimating") what is already theoretically claimed. See also the connection between Feenberg's doubling of the task of phenomenology and his discussion of Marcuse's introduction of experience and objective representation as a "second axis," to be considered together with the theory-practice distinction (Feenberg 2005, 111).
- ¹⁶ An "empirical turn" and anti-totalizing objections like this have become quite common among philosophers of technology. See, e.g., Achterhuis 2001, 6-8. The major weakness in treating Feenberg this way, however, is that emphasizing his "empiricism," as Achterhuis does, tends to obscure Feenberg's much greater stress on developing a critical socio-political perspective on

technoscientific life. In my language above, it makes too much of Feenberg's traditional phenomenological side and too little of his aesthetically revolutionary phenomenological side.

¹⁷ Ricoeur says somewhere in *The Conflict of Interpretations* that "hermeneutics begins when, not content to belong to the historical world considered in the mode of the transmission of tradition, we interrupt the relation of belonging in order to *signify* it." The italicized word is problematic and, I think, shows where the difference between Ricoeur's more "conservative" sort of hermeneutics and Heidegger's (and to a less extent, Gadamer's?) more revisionist sort of hermeneutics lies.

¹⁸ For this conception of formal indication, see above all, Part I of Heidegger's WS 1920-21 lecture course, "Introduction to the Phenomenology of Religion," Heidegger 2004, 38-45.

Reply to Dahlstrom and Scharff Andrew Feenberg Simon Fraser University

I

Daniel Dahlstrom's and Robert Scharff's comments on my book, *Heidegger and Marcuse*, open up a wide range of issues for discussion. I am grateful to them for their positive comments on the book and also for their sharp criticism. I am not convinced by their attempts to show that my interpretation of Heidegger is "ill-advised" or "flawed." Their substantive criticism of my approach challenges me more deeply and in more interesting ways. Although I am not convinced by these criticisms either, responding to them advances the argument and so I will focus primarily on that task.

The Greeks. Most of Dahlstrom's criticism of my readings concerns Heidegger's relation to the Greeks. For example, Dahlstrom claims that I claim that Heidegger's thought is based on Greek thought. This reverses my take on the flow in the relation between Heidegger and the Greeks. I do not claim that Heidegger follows the Greeks but rather that he interprets the Greeks as predecessors who, in his interpretation of them, anticipate his theory. This is a very different and more plausible proposition from the one Dahlstrom attributes to me.

I am also supposed to have under-emphasized the Christian influences on Heidegger. The quotations proving this are all from quite early in Heidegger's career. There is no doubt that Heidegger started out as a Christian thinker, but he turned against his origins during the 1920s. This is well documented in various biographies and contemporary letters. In the *Four Seminars* Heidegger says, "To restore philosophy to its own essence means to purge it of its Christian element, and to do this out of concern for the Greek element" (Heidegger 2003, 25). John Caputo has written an interesting book called *Demythologizing Heidegger* in which he shows how Greek influences replaced Judeo-Christian influences as Heidegger's thought matured.

Productionism. Dahlstrom's claim that Heidegger had already rejected productionism quite early, long before the mid 1930s, is conceptually more significant. I argue that production serves as an ontological model for the early Heidegger and continues to influence Marcuse's thought long after Heidegger

Techné 9.3 Spring 2006 Feenberg, Reply to Dahlstrom and Scharff/82 abandons this approach. Their interpretation of the difference between premodern craft and modern technology, and especially between the ontologies associated with these ways of making, goes to the heart of my argument. If production is unimportant to Heidegger throughout his career as a thinker, my argument falls.

Dahlstrom proves his case with a quotation from the 1927 Basic Problems in Phenomenology in which Heidegger asks, "But the interpretation of the being of beings as something produced, does it not still contain an unbearable one-sidedness within itself?" (Heidegger 1982, 115) But this turns out to be a rhetorical question. In the next paragraph Heidegger returns to the problematic status of production and argues that it always already includes a reference to a material that is not itself produced. This allows him to conclude that "The understanding of being in production is so far from merely understanding beings as produced that it rather opens up precisely the understanding of the being of that which is already simply extant....Productive comportment is not limited just to the producible and produced but harbors within itself a remarkable breadth of possibility for understanding the being of beings, which is at the same time the basis for the universal significance assignable to the fundamental concepts of ancient ontology" (116).

Scharff also objects to my interpretation of Heidegger's relation to Greek productionism. He insists that Heidegger's critique of the technological age extends back to his early writings and includes in its range the thought of the Plato and Aristotle. While this is good late Heidegger, Scharff appears to deny the well known periodization of Heidegger's work into an earlier phase in which he views instrumentality positively, at least in its everyday forms, and a later phase, following the famous "turn," which culminates in the critique of technology. I think this periodization is right and cite remarks by Kisiel and Gadamer that support my understanding of the role of the Greek productionism in Heidegger's thought.

But these authorities are not needed. Here is Heidegger himself in his 1931 course on Aristotle's concept of *dynamis* in its relation to technē: "We have to clarify for ourselves what it signifies that man has a relation to the works that he produces. It is for this reason that a certain book called *Sein und Zeit* discusses dealings with equipment, and not in order to correct Marx, nor to organize a new political economy, nor out of a primitive understanding of the world" (Heidegger 1995, 117).

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Essence and Science. Both Dahlstrom and Scharff object to my interpretation of Heidegger's concept of essence and its relation to scientific truth. Dahlstrom thinks I have overlooked Heidegger's interesting reconceptualization of essence altogether, but in fact I cover Heidegger's main point, namely, the idea of an active "essencing" rather than a mere conceptual "whatness." The problem for Heidegger, and for us, is that the enframing reduces everything to fungible raw materials and system components, dissolving essences in the traditional sense.

Natural scientific discoveries cannot play the role of essential insight as Dahlstrom claims. Heideggerian essences belong to the revealing which grants a world, not to ontic understandings of particulars within the world such as science provides. The issue is not simply that essences are normative unlike scientific truths. Essences are original meanings not scientifically explainable mechanisms which themselves presuppose a meaningful world.

Scharff's critique is the opposite of Dahlstrom's. He wants a more rigorous distinction between Heidegger's ontological project and science. According to Scharff, Heidegger's basic objection to Husserl, Dilthey, and Jaspers was their failure to question the status of their own inquiry. The "who" of knowing is not a Cartesian cogito because it is historically situated. Beyond this there is the question of the nature of that historical situation which, in a technological age, both obstructs ontological knowledge and in a curious way makes it possible on a margin of science Heidegger himself intends to occupy. In sum, Scharff understands Heidegger's version of phenomenology to be historically self-conscious in a way that science is not. As Heidegger wrote in his early critique of Dilthey "it is possible to emancipate the past so that we can find in it the authentic roots of our existence and bring it into our own present as a vital force" (Heidegger 2002, 175).

But Scharff complains that I offer little more than a Diltheyan, or worse yet, Rortyian tolerance for different modes of knowing, all equally objective. For these thinkers, and presumably for me too, natural and human sciences can coexist peacefully because they presuppose a neutral and ahistorical concept of knowledge. But I nowhere say any such thing. My willingness to accept the validity of science in its own sphere is no different from Heidegger's. It implies neither the neutrality of science nor the privileging of scientific knowing.

Recognition that science is historical and biased as such need not imply a rejection of its correctness. The contrary view, that science is simply wrong,

Techné 9.3 Spring 2006 Feenberg, Reply to Dahlstrom and Scharff/84 leads to some fairly disastrous consequences as Scharff would surely agree. The key issue is one Heidegger addresses in his discussion of truth in *Being and Time*. He writes, "the contention that there are 'eternal truths' and the jumbling together of Dasein's phenomenally grounded 'ideality' with an idealized absolute subject, belong to those residues of Christian theology within philosophical problematics which have not as yet been radically extruded" (Heidegger 1962, 272). I will have more to say about this issue in the next section.

II

Dahlstrom's and Scharff's substantive criticisms make four key points, first, that I misunderstand Heidegger's critique of the privilege of theoretical knowledge over practice, second, that I both posit a sharp distinction between lived experience and scientific truth and claim that technology overcomes that very distinction—an apparent contradiction or confusion—third, that Marcuse's concept of life affirmation lacks criteria and justification, and fourth, that I follow Marcuse in substituting a dangerously amoral and utopian aesthetics for ethics. These interesting criticisms have obliged me to rethink my position.

Practice and Theory. Scharff thinks I have simply reversed the privilege of theory over practice for political reasons without understanding why this is an issue for Heidegger. I am supposedly unaware of his historical ontology. I find this puzzling but perhaps I have misunderstood Scharff's rather complicated commentary.

I argue that at issue for Heidegger is not simply the question of which standpoint—theory or practice—is more basic, but also the relation of each standpoint to the dominant technological prejudice of the age. Theoretical science is not pure but is thoroughly complicit with technology and blind to its bias. Where science is uncritically accepted as the privileged access to being, the knower's self-understanding is distorted and being appears as the sort of thing that can be represented by a detached, spectatorial subject.

In this representation nothing has an essence in the premodern sense, that is, a potential for being that strives to realize itself in existence and knowledge. Instead each thing appears as a component in a groundless plan or project. This is the ultimate meaning of the technological enframing. The situatedness of knowing is inaccessible from this modern standpoint that splits subject irrevocably from object.

By contrast, phenomenologically-grasped everyday practice reveals an original unity of subject and object as being-in-the-world. Theory is founded in this original unity. In my book I argue that Heidegger's early work up to the mid 1930s presents Aristotle's productionism as an objectivistically distorted way of expressing this insight. The ancients discovered scientific rationality but they avoided modern nihilism by interpreting the world in essential terms rather than mechanistically. The essences they discovered were in fact projections into objectivity of the forms of their own practical relation to the world in lived experience. We have lost the naïveté that made this peculiar hybrid conception plausible and protected the Greeks from the catastrophe of meaninglessness. This "Eden of reason" is such only ironically.

Heidegger gradually realized that his retrieval of ancient thought had a peculiarly complex relation to his own situatedness in modernity. On the one hand, technological thinking undermines the idea of eternal essences which had prevented the Greeks from recognizing being-in-the-world. But on the other hand, technological thinking also occludes awareness of being-in-the-world by privileging detached knowing over everyday practice.

Once we understand that essences are not objects of science but articulations of situated practices, we are on a path leading to fundamental insights. Unfortunately, from Kant down to the present, this insight has been obscured by objectivistic assumptions, to which correspond subjectivist and relativist understandings of the relation of subject to object. Heidegger breaks with these assumptions and reconceptualizes the whole problematic of knowledge on a practical basis. This is the import of the first part of *Being and Time*. The analysis there aims to reconstruct the creative role of Dasein in the emergence of meaning without falling into subjectivism.

I think it is this point, which I go over in several different ways, that Scharff has missed. In one passage I explain it by showing that cultural relativism involves a reflexive paradox. The constructive power of the subject, first clearly identified in Kant, implies a relation to a sensible material on which meanings are imposed. This model of knowing exactly reproduces the structure of modern technology, which imposes arbitrary plans on inherently formless raw materials. Hence cultural relativism is culturally relative to a specifically technological culture and cannot pretend to absoluteness. I write:

Here we reach the point where we can recognize the "saving power" in technology, the way in which our very nihilism can liberate us....Instead of seeing our world as mere raw materials and system components, we can see it as a particular way in which being appears. But this way, like all others, is partial, incomplete. Being conceals its other possibilities in revealing one of them. Our common sense cultural relativism is the expression of this truth of being in the language of technology. Only in the very different language of Heidegger's "history of being" can we grasp the nature of revealing itself and so free ourselves from the limitations of our own time. This history begins with the Greeks. To understand Heidegger's thought we must therefore return to his interpretation of Greek philosophy, specifically the philosophy of Aristotle (Feenberg 2005, 24).

Given that all this is to be found in my book, how different is my understanding of Heidegger's ontological project from Scharff's? Not very, in my opinion.

Lived Experience and Technology. This leads me to Dahlstrom's critique of my understanding of the relation of lived experience to cognition. I seem to be saying two contrary things about this relation, on the one hand that experience and knowledge are the disparate sources of irreconcilable truths, and on the other hand that they come together in technology. Dahlstrom finds a contradiction here which Scharff assumes I avoid only by imagining some sort of newfangled technology. In fact I do not fall into contradiction or make implausible predictions, but the connections between experience and objectivity are indeed complicated.

Heidegger understands experience as practical engagement with our surroundings in terms of operative meanings enacted in a world. Scientific representations of the world rely implicitly on the operative distinctions made in experience.

This is an issue that comes up in philosophy of mind. When we say that memory is lodged in a certain part of the brain, we presuppose a notion of memory that articulates our first person conscious experience. The scientific representation of mind as brain depends on our pre-scientific understanding of mind as the first person activity which we are. (I do not, by the way, agree with Scharff that the first person standpoint is merely subjective in the bad sense.) The third person approach of science attempts to explain its own foundation in first person experience. This raises questions about ontological priority. Sartre identified a reflexive paradox here. Heidegger, more simply, asserted the incommensurability

Techné 9.3 Spring 2006 Feenberg, Reply to Dahlstrom and Scharff/87 of the objectivistic account and the experience it pretends to explain.

My book does not contribute to this deeper discussion but remains at the descriptive level. I show that technology brings the results of cognition into our lived experience in a unique way that resolves the antinomy of experience and objectivity *practically*. The barrier between experience and objectivity is not absolute at the practical level because our world is structured technologically and technology itself is a product of cognitive representations implemented as a life environment, a *Lebenswelt*. The particular value orientations and meanings found in lived experience are fused in the course of implementation with technically rational solutions to the practical problems that arise in that experience.

A continual process of translation shuttles back and forth between technical rationality and experiential contents. Experiential meanings guide technologists in selecting among technically underdetermined problems, designs and materials. Once technologies are released on the world, their technical rationality is apprehended practically in experience and so translated into symbolic terms. I call the specific rule of this process of translation the "technical code" of technology. The antinomy of experience and objectivity is overcome only practically, not theoretically. I do not propose a reconciliation of the practical truth of experience and scientific truth. Rather, translations between them yield a particular technical universe congruent with a quality of experience within that universe.

This is not precisely Marcuse's account, but he did argue that what he called "technological rationality" expresses the project of a social subject. Each technical universe can be interpreted not only in terms of the causal logic of devices but also in terms of the social logic that presides over their design. The concept of technical code introduces a more concrete and socially specific approach to understanding the selection from among a host of possible designs of just those that conform to the requirements of a social subject. Enframing, or technological rationality, must be reinterpreted as a particular, socially conditioned implementation of technology rather than as the inevitable destiny of modernity.

Affirmation of Life. These considerations form the background to my response to Dahlstrom's complaint that Marcuse's concept of life affirmation is empty. I regard the concept as useful for distinguishing the normative significance of different technical codes. In Marcuse and in my own book too there are appeals

Techné 9.3 Spring 2006 Feenberg, Reply to Dahlstrom and Scharff/88 to our intuitions about what is life affirming. These appeals are intended to show the compelling force of the concept despite our difficulty supplying it with a philosophical rationale.

By contrast, Heidegger does not appear to take these intuitions seriously. In one infamous passage he compares the holocaust with industrial farming. It would be cruel and unusual commentary to suppose that he intended a moral equivalence between these phenomena. But what kind of discrimination is possible for a critique that condemns technology for storing up and mobilizing energy and materials? By contrast, at the end of *One-Dimensional Man* Marcuse attempts to define criteria of civilizational advance based on a notion of affirmation of life. Social and technological arrangements that contribute to the exercise and fulfillment of human capacities figure among these criteria.

The notion of life affirmation cannot be reduced to a set of principles. It describes a certain way of being human, a sensibility, a culture, and a choice of technological environment rather than an application of philosophical abstractions. Any rational framework we introduce for justifying our intuitions about life affirming practices will serve more as an interpretation of them than as a legislation founding them. This is a Hegelian approach according to which values are embedded in social institutions and—from a Marxist perspective we must add—economic and technological systems, rather than floating free as pure ideals.

Ethics and Aesthetics. This brings me to Dahlstrom's and Scharff's rather harsh criticism of aestheticism in Marcuse and in my book.

Dahlstrom claims that like Heidegger and Marcuse I fail to address ethical issues. This may well be a flaw in Heidegger but I do not believe Marcuse and I are guilty of it. I carefully analyze a text of *One-Dimensional Man* in which Marcuse revises Heidegger's history of being. The revision concerns the normativity of essence in antiquity. Marcuse's critique of modern technological rationality focuses by contrast on its normlessness. I have reinterpreted Marcuse's critique of the neutrality of technology in social terms as a reduction of traditional constraints on technology under capitalism. Like Marcuse I aim at the recovery of a normative conception of the technical that can guide the reconstruction of modern technology.

Scharff claims that Marcuse and I advocate a politics of "the imagination...

Techné 9.3 Spring 2006 Feenberg, Reply to Dahlstrom and Scharff/89 flying free of the entanglements of ordinary perception to see things in an utterly creative and extra-familiar way." But idealism of the imagination correlates with a deterministic and empiricist notion of reality and is no alternative to it. Here Scharff echoes a complaint of Lukács in *History and Class Consciousness* which has shaped my whole approach to philosophy since I was a student. But let us see once again what I actually argue.

In the preface to *One-Dimensional Man* Marcuse wavers between two hypotheses: either the one-dimensional society has entered post-history by integrating all opposition, or subtle tensions still remain and permit the hope of change. So said Marcuse in 1964. By 1969 he had decided for the second hypothesis under the influence of the New Left and particularly the French May Events of 1968. It was in this context that he proposed the theories of aesthetics and the new sensibility I discuss in my book. Marcuse believed that the New Left exemplified or at least hinted at the possibility of a new mode of experience that would encounter its objects in the light of their potentialities rather than in the empirically flat—one-dimensional—manner of technologically structured perception.

This notion combines Heideggerian and Hegelian elements. Like Heidegger's Aristotle, Marcuse analyzed a unique kind of perception that is joined to action in pursuit of a form, an *eidos* that exemplifies the "right way" of doing and being. This mode of experience is associated with technē in Aristotle. The craftsman's percepts contain a negative moment insofar as they immediately compare the current state of the work with its perfected form and do so not merely intellectually but in action. In Marcuse, a similar negative moment shapes the radical perception not of artifacts but of worlds.

From Hegel Marcuse derives a progressive notion of history based on "determinate negation," that is, resistances emerging immanently out of the given historical life form. In Marxism this Hegelian approach is inflected economically and technologically. Forms of life are judged in terms of the contribution of "modes of production" to realizing human potential as the latter is defined by human beings themselves through the movements that express their aspirations. For Marcuse, experience rather than mere opinion must come to reflect the demands of such movements. Experiential resistance contrasts with individual moral exigency, ideology or utopia which, following Hegel and Marx, Marcuse sees as incapable of inaugurating epochal change.

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Nevertheless, Scharff attributes to me and to Marcuse a moralizing utopianism that departs from these Heideggerian and Hegelian premises to present an arbitrary ideal in opposition to a reality that does not yield to mere private fantasies. Supposedly, we fall behind Heidegger's deeper insight into the tensions implicit in the enframing. Thus it is Heidegger who is the real radical, engaging with the real possibilities of experience, while Marcuse and I impotently complain about a reality we observe from the outside.

Ш

I have a hypothesis I will propose here to explain this misreading. When I first studied Heidegger as a student in the early 1960s, dystopian ideology was widely popular among intellectuals. Political opposition had been crushed in the McCarthy era and technocratic liberalism was riding high. The only resistance most of us were aware of was beatnik poetry, jazz and Zen. When Heidegger claimed that "Only a god can save us" he spoke directly to our mood of historical despair. I still read him that way and I think this is the correct reading. If Scharff has textual evidence to the contrary I would be interested to see it.

In recent years, dystopian anxiety has come to seem old hat. A more combative mood has emerged which George Bush has not yet succeeded in eradicating completely. Perhaps it is the rise of the Internet or the existence of environmentalist and feminist movements that has shaped this mood. In any case, recent interpretations of Heidegger attempt to bring him into the new consensus: history is not over, we can do something after all.

Some commentators find the basis for an environmental philosophy in Heidegger, others an ethic of care or an anarchistic politics, you name it. And some, like Scharff, detect a radical politics of experience. Reinterpreting Heidegger in this way is a dubious enterprise, as Marcuse himself argued throughout his career. Heidegger does not concretize Dasein beyond referring to its linguistic or national particularity. In his early essays Marcuse shows that this is insufficient and arbitrarily elides class and other social differences. Postmodern critiques of race and gender-blind universals recapitulate and elaborate this sort of originally Marxist argument. Furthermore, Heidegger's revised concept of essence, while interesting, is empty of content. It specifies no potential to be realized in our own world. As a result the normative force of the concept of essence is expended in a vague discomfort with modernity in general. In his later work Marcuse granted essence normative power once again in a

Techné 9.3 Spring 2006 Feenberg, Reply to Dahlstrom and Scharff/91 modern context through his notion of the affirmation of life, the critique of the separation of reason and imagination, and the concept of the new aesthetic sensibility.

Recent attempts to politicize Heidegger remind me of nothing more than Marcuse's own early struggle to extract the ground for a radical politics from Heidegger's thought. But Marcuse was there first and in my opinion did it better without misattributing his own innovations to his teacher. I suggest that rather than saddling Heidegger with implicit political intentions so very different from his stated positions, it would make more sense to look seriously at the thinker who developed the radical argument explicitly and more or less consistently.

Why is this so difficult? It is partly Marcuse's fault. His reference to aesthetics sharpens Dahlstrom's and Scharff's critical sword. Aesthetics introduces an ambiguity that can appear fatal in an unsympathetic reading. In some texts Marcuse argues that art conserves values denied by reality. What are these values? Do they have ethical content and are they grounded in anything more significant than individual fantasy?

It is true that in certain thinkers such as Jünger aesthetics erases ethics. When Marinetti praises the beauty of a flamethrower's blast we are rightfully disturbed. But there is nothing like this in Marcuse. Aesthetics is identified with love of life, a generalized erotics, rather than a pursuit of sublime shock. Ethics is not irrelevant in Marcuse's conception or my own but it is unable to anticipate concrete alternatives to the technological universe in which we live. For that we need to imagine and ultimately design a different way of life based on a different technology and not just apply moral principles to the world as it is today.

Scharff complains that this is mere utopian idealism, a departure from the experiential ground that alone can give meaning to resistance. But whatever the idealistic tendency of some of Marcuse's writings, it is literally *aufgehoben* in texts such as *An Essay on Liberation*, written in the period when the New Left was on the rise. In these texts we are presented with the notion of the aesthetic entering everyday perception in response to immanent tensions in the historically given form of life. This new sensibility, and not philosophical speculations, will someday inspire a reform of society. It is this argument which I highlight in my book.

I think there is a deeper historical problem in the current reception, or rather,

Techné 9.3 Spring 2006 Feenberg, Reply to Dahlstrom and Scharff/92 rejection of Marcuse. Whether we acknowledge it or not we are living in the shadow of the New Left. The political movements of the 1960s form the horizon of our most radical aspirations today. When we think about progress what do we bring to mind? Equality of race and gender. Preservation of the environment. An end to imperialist war and all forms of discrimination and exclusion. Equal rights and sexual freedom. These are all themes of the 1960s. As Sartre's put it in 1968, the new forms of resistance have "enlarged the field of the possible." And yet the New Left is despised as immature, narcissistic, irrelevant, impotent, failed, and so on.

As the advocate of the potential of the New Left, Marcuse is viewed as naïve rather than prescient. It is curious that Adorno has become fashionable when he was the one who called the cops on student demonstrators. Now we have various Heideggers who are better radicals than Marcuse. A bit more historical self-consciousness would steer us clear of such implausible distortions of the record. We need to take seriously *in our case* the question Scharff poses of the "who" of knowing and, in Heidegger's words, "emancipate the past so that we can find in it the authentic roots of our existence and bring it into our own present as a vital force."

The point is not that Marcuse was right about everything. He never claimed to be the greatest thinker of the age. Nor did he believe the revolution was around the corner. He analyzed the new sensibility of the New Left as an anticipation of the condition of revolutionary opposition in a society no longer fraught with class conflict. To charge him with naiveté one must attribute to him illusions he never entertained.

By a coincidence which surprised him as much as anyone, Marcuse was able to join several traditions of radical questioning of modernity with an unexpected political upsurge of considerable significance. This coincidence was in his opinion a precious opportunity to renew these traditions and to contribute to the self-awareness of a younger generation entering political life with remarkably generous hopes for change. Can we still learn from this extraordinary philosophical-political encounter? I believe we can and I hope to convince others to study Marcuse and the history of the New Left with more sympathy and understanding.

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