TECHNOLOGICAL SOCIETY AND THE PROSTHETIC

ALTERATION OF THE HUMAN BEING

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by

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A thesis submitted to the

School of Graduate Studies

in partial fulfilment of the

requirements for the degree of

Master of Arts

Department of Philosophy/Faculty of Arts
Memorial University of Newfoundland

May 2002

St. John's   Newfoundland

Abstract

The human-technology relationship may be helpful or harmful for human life, and technologies may be conceived in terms of tools and prostheses. Prostheses replace something the human is lacking, while tools enable. Contemporary technological society promotes prosthetic dependency by privileging the machine over the human, and consequently judging the human by the standards of the machine. Prostheses, when not converted to tools, may hinder human life by inhibiting the individual's ability to experience the world. Prosthesis, as a substitute for experience and personal judgment, potentially endangers personhood.

Acknowledgments

I would like to give my thanks to the following people:

Peter Trnka for planting the concept prosthesis, and for his very helpful suggestions, directions, and comments.

Dianne McCullagh for giving me her trust, support, and practical knowledge.

Renee Jackson, with whom I have learned to share thought, for giving me hope and revealing to me the importance of creative activity.

Patrick Tomlinson for teaching me to celebrate, often, and in many ways.

And Joel Ramirez for speaking the truth of the matter, and for being a living exemplar of what I mean by appropriation.

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Chapter 1: Introduction

Technological innovation and intervention have become one of the central foci of the Western world. Technology, a major factor in the struggle towards resolution of several human problems (health, food, shelter, transportation, communication, and creation) has altered, and in many ways made more secure, our material conditions. This has lead to the contemporary conception that modern technology is the best achievement of humanity. There is, however, a common misconception that it is technological, rather than human, power, which has altered the world. Praising instruments, rather than the human beings and society which construct and use them, serves to obscure the function of technology. By undervaluing human intentions we misconceive the technological in terms of agency, thereby creating conditions whereby humans are judged by technological, rather than human, standards.

It will be the task of this work to examine the social assumptions upon which human relationships with technology are based, and how the type of relationship which exists between humans and technologies influences whether particular technologies are helpful or harmful for human life and personal action. The focus will be on how the way in which ethical decisions are thought to be made, affects the human relationship with technology. More specifically, it will be argued that the social propagation of the belief that ethical decisions are primarily based upon rationality encourages the reduction of humans to technological considerations.

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Technological judgement of humans will be shown to be supported by those philosophies that place the intellect, specifically rationality, as primary in the decision making process. This approach to action sees the machine as functioning more rationally than the human since machines and techniques are uninhibited by attachments to contexts which are signified in emotions and are thereby considered less error prone. A consequence of this view is that humans are seen to be in need of prosthetic alteration in order to approach the perfection of the mechanical. When the machine is the paradigm, then human subjectivity, uniqueness, and judgement are viewed as flawed or unfit. Humans, then, "need" a prosthesis in order to properly function in a technical realm. This perceived and enforced need for prosthetic alteration of the human is most prevalent in the realm of work.

Prosthetic dependency, currently much encouraged, transforms the person into someone desirable in terms of the standards and norms of technological society. Rather than fostering a diversity of personal capacities and attributes, prostheses are used to replace these with a more homogenous set:

> Dominant scientific knowledge thus breeds a monoculture of the mind by making space for local alternatives disappear, very much like monocultures of induced plant varieties leading to the displacement and destruction of local diversity. Dominant knowledge also destroys the very conditions for alternatives to exist, very much like the introduction of monocultures destroying the very conditions for diverse species to exist.[1]

The superlative conception of technology closes off the arena in which consideration of a diversity of ways of doing things exists. This has the effect of hindering personal development because the human judgement is rendered unnecessary, and obsolete.

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Tools, in contrast to prostheses, enable human action. They are useful to our lives as social individuals. A tool is different from a prosthesis as tools require the exercise of human judgement, based on experience. We use tools to engage with the world, and prostheses when we allow ourselves to be acted upon because of a perceived lack. For example, a telephone answering machine enables the communication, storage, and retrieval of messages. It may be used to enhance or avoid social contacts. In these respects the telephone answering machine is a tool. This same technology, however, may be considered a prosthesis if it is acquired because the individual perceives it as necessary to make up for some kind of lack, such as never being at home. The telephone answering machine, as a prosthesis, acts upon the individual by changing the structure of their life. They may now be reached at any time, whether they are at home or not, and upon returning home they have access to all the messages left that were recorded while they were away. These messages may be a welcome surprise, or a factor contributing to stress. It is these alterations of life that prostheses bring that need to be evaluated, and perhaps re-structured for technologies to become tools. The significance of the distinction is that technology may provoke human judgement, or stifle it. Tools belong to a human realm, whereas prostheses can place the human in a technical realm. When an individual takes up with a technology because they perceive themselves to be lacking, and if this prosthesis is encouraged by, because useful to, a technical system, then the individual is being adapted to a technical end. Cellular phones may be seen as prostheses in that individuals lack the ability to communicate over long distances from almost any location, and these telephones make up for this inability, or inadequacy. They become

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tools, however, when the individual who has acquired the phone integrates it into the structure of their life by making judgements as to when to carry it, when to turn it on, and when to use it. These judgements are based on the consideration of a wide range of consequences of the technology. John Dewey's interpretation of the human plane is illustrative of the process by which technologies become tools:

> When appetite is perceived in its meanings, in the consequences it induces, and these consequences are experimented with in reflective imagination, some being seen to be consistent with one another, and hence capable of co-existence and of serially ordered achievement, others being incompatible, forbidding conjunction at one time, and getting in one another's way serially – when this estate is attained, we live on a human plane, responding to things in their meanings. A relationship of cause-effect has been transformed into one of means-consequence.[2]

When we live on a human plane our actions are considered, and our technologies are tools. We do not live on a human plane when we allow ourselves to be prosthetically altered without insight into the values and broad consequences of this alteration.

Technologies are useful or not depending on how well they fit within the lives of the persons using them. Prostheses are those technologies which alter the person's life in such a way as to adapt the person to a given set of circumstances. Prostheses are detrimental when they serve to adapt the person to the technology or the technological system, promoting a disregard for the higher significance of the life.

It will be shown that striving towards a mechanical ideal blocks the human emotional capacity, making personal orientation by way of co-creation and development less possible. Human beings ingest a mechanism manufactured by technological society and it is that mechanism, prosthesis, that causes them to adapt themselves to the machine (the system of technological society) willingly. Humans become instruments, and do so

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willingly because the instrument has become the measure of good. Technological society, being unable to see beyond itself, is unable to see a higher value than utility.

Humans need technology, but at what point does technology become harmful rather than helpful? Philosophical queries into the concept of need have a long history in Western Philosophy. At least since Plato philosophers have wondered about what need is, where it is located, and whether or not the needs of individuals are compatible with the needs of societies. The following work is connected with these problems, and though they will not be tackled directly readers should note that it is those sorts of questions that form the larger substratum of the investigation into the impact of technology on human life.

Chapter 2: Tools and Prostheses

"For individuals the means of power act as prostheses which weaken the natural use of functions."[3]

Prosthesis and Lack

Prosthesis is the term used for an artificial adjunct to the body, intended to make up for some missing or inadequate part.[4] In this definition of prosthesis we should pay specific attention to the term "inadequacy." The evaluative notions of adequacy and inadequacy determine whether prosthesis is appropriate or not. Prosthesis as the addition of a mechanism or device to the individual, could also be conceived as the alteration of individual via a technique. What we normally call a prosthesis, in the medical sense, an artificial limb, for example, becomes a tool when the person to which it is attached learns to use it to walk. Learning to walk with an artificial attachment is the process of appropriation which turns the attachment from prosthesis to tool. Tools are what we use to aid us in our activities. Prostheses, when left unchecked, are used in order to make humans more mechanical; they may restrain and constrain us to a technical, rather than human, end.

We may see the distinction between tools and prostheses in terms of a continuum. This differentiation is based on the relationships between the individual, the technology, and the world. The status of the technology may be determined by examining the intentionality of the individual in their relationship with the technology. Technologies such as glasses or contact lenses are used to make up for optic deficiencies, and as such are prostheses. They become more tool-like, however, when they are appropriated by the

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individual through incorporation. Decisions about style. as well as when and how to wear these technologies are part of the process of making technologies tools. We work with our tools. and prostheses work for us.

Tools are enabling. We use tools to work. to engage in "...purposive action. guided by intelligence."[5] Prostheses are technologies whose capacities we require. but do not have. A person with an injured leg may require the support of a splint: the splint has the strength that the leg lacks. A person with poor eyesight may require artificial lenses in order to see. Many more technologies may function as prostheses. depending on what we perceive ourselves to be lacking. Cars. computers. photographic images. schools. and machines of various sorts can classify as prostheses when the individual is. or perceives themselves to be. lacking in the capacities which these various techniques and technologies offer. Tools are what we use as whole beings. prostheses are operative when we lack.

The medical realm can provide us with an illustration of the problem of prostheses. In contemporary society there is a widespread conception that medical practices are universal and absolute. and people thereby accept the prescriptions of the medical establishment as if their worth was generally determined. But the value of the continued multiplication of medical interventions may no longer be in the best interests of health. Ivan Illich argues that the "...positive contribution of modern medicine to individual health during the early part of the twentieth century can hardly be questioned..." but "[t]rust in miracle cures [has] obliterated good sense and traditional wisdom on healing and health care."[6] When medicine as a prosthesis becomes a

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replacement for the good sense of individuals, then it is detrimental to individual and social life.

For example, most medical treatments are tools of the doctor, but prostheses for others. Doctors are trained to understand the interaction between symptom, illness, and treatment. This knowledge *enables* them to practice the treatment of illnesses. Doctors' tools, such as diagnostic devices and drugs, are prostheses for those in need of them. The sick individual may be dependent upon the tools of the doctor. There is nothing wrong with this prosthetic relation, but it is dangerous. Failing to recognize the danger of this relationship potentially damages personal judgement.

The point at which prosthesis becomes problematic is difficult to ascertain and can only be determined by way of contextual judgement. Varying degrees and kinds of prosthetic dependence exist for each person. In the case of medicine, the difficulty can be seen when an individual surrenders their personal notions of health, and adopts the prescriptions of the medical establishment as law, truth, and necessity

Prosthetic medical treatment can become a tool for the sick individual, however, when it enables them to understand the conditions of their illness better. The knowledge of the medical establishment becomes a tool when one uses it to complement one's personal notion of health. The knowledge may be questioned, judged, rejected, altered, or adopted. The greater the range of possibilities of use, the more tool-like technologies become. Alteration of lifestyle is one manner of dealing with a variety of illnesses, drugs are another. In contemporary society there is a tendency towards the prosthetic use of pharmaceutical drugs, as people believe themselves to be lacking in things that the

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drugs provide them. Persons need not be free of prostheses, but they cannot be completely dependent on them either. The degree of prosthetic dependence is an individual determination made within a context. The point is that prosthesis should not go unexamined.

One concern with prostheses is that there is a greater emphasis on the alteration of a person's self than on an alteration of the world, or of the person's place within the world. Where a tool is a part of a person's action in the world, prosthesis is an act of the perceived world onto the person; it is the internalization of what is considered law, norm, or authority. Stephen Rose illustrates this problematic in regards to psychochemical drugs:

> The real threat of psychochemicals is a ... subtle one. After all, one may not require the spraying of chemicals from the air, or their dropping into the water supply, if the people can be sufficiently accustomed to regard the right response to any type of psychic distress as to obtain a prescription from a doctor for a chemical to put it right; if society is so conditioned that a substantial proportion of its members regard their sensations of pain in relation to that of society, not as a sign of society being out of joint, but of they themselves being clinically ill ... With drugs to sleep and to wake, to sedate and alert, to ease pain and to generate joy, we have already arrived at one form of *Brave New World*, in which the medical profession, and in particular psychiatrists, act as lieutenants in the campaign for the preservation of the status quo.[7]

When, in the face of unhealthy social conditions, individuals forego personal and social evaluation for a drug, then this drug is a negative form of prosthesis in that it is serving to replace their sensibilities. The problem is not so much whether or not the individual takes the drug, but the process used in deciding whether or not to take the drug. The more narrowly individuals and societies conceive possibilities, the more harmful prosthetics will be.

Richard DeGrandpre titles this form of drug use "prosthetic pharmacology."[8] One of the problems he sees with it is that drugs, such as Ritalin, make it "...easier to live under ... unhealthy conditions..."[9] In his experience in working with parents of children who have been labeled as Attention Deficit Disordered, a deficiency he believes has social and cultural causes more often than biological ones, he has found

> ...the realm of possibilities imagined to be narrow, since parents, teachers, administrators, and physicians have been encouraged to believe that the structure of the child's life is not related to these problems.[10]

Rather than work to remedy what may be a situational problem, a prosthesis is used to adapt the child to that very situation. Further, the belief of these parents, teachers, administrators, and physicians could be viewed as a prosthesis as it is the result of the internalization of what they consider authority, and a replacement for their evaluation of the situation.

Prosthesis as the ingestion of the will of another

We all internalize and are co-constituted by things which we perceive in the world, but there is a distinction between what we understand in the world, and hence allow to penetrate us, and what we simply take as law, or norm. To internalize a law or a norm without insight into its value is a denial of our sensibility. Prosthesis compromises personhood when there is an inability to recognize, in the internalization of images, standards, and norms, that we are ingesting the will of another in the service of a technical end or objective, rather than a personal goal.

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Machine as Measure of the Human

Prostheses are supplementary organs, in the sense that they are used as substitutes for pre-existing human capabilities. Prosthetic alteration is often seen as intending and achieving an "improvement," or "normalization," of the individual. It is our contention that prosthesis does not always enhance, but can diminish, the capabilities of the human. The detrimental effects of prosthesis occur when the machine is seen as the measure of the human. When the machine is the measure, when the organ is viewed by analogy with the tool,[11] the human is seen as lacking and in need of alteration, prosthesis, in order to approach the adequacy of the mechanical. When prosthesis occurs as a result of the normativity of the machine, the technology is being used on the individual, rather than by them.

R. Boguslaw illustrates one way in which humans are measured by the standards of the machine:

> What we need is an inventory of the manner in which human behaviour can be controlled, and a description of some of the instruments which will help us achieve that control. If this provides us with sufficient handles on human materials so that we can think of them as metal parts, electrical power or chemical reactions, then we have succeeded in placing human material on the same footing as any other material and can begin to proceed with our problems of systems design. There are, however, many disadvantages in the use of these human operating units. They are somewhat fragile, they are subject to fatigue, obsolescence, disease and even death. They are frequently stupid, unreliable and limited in memory capacity. But beyond all this, they sometimes seek to design their own circuitry. This in a material is unforgivable, and any system utilising them must devise appropriate safeguards.[12]

Among the disadvantages of using living humans, Boguslaw lists three characteristics: fatigue, disease, and death. He disparages the human tendency to design. The inclination

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to 'design one's own circuitry' is an example of the human tendency towards tool-use and is suggestive of imagination: the ability to see another way.

Max Scheler sees such developments in a more general manner in terms of organs and tools. Modern society, he argues, views the organ by analogy with the tool: the living by way of the dead, dead matter. This view seeks to reduce the processes of life to the mechanical in order to achieve control. For Scheler, this modern worldview is the result of *ressentiment* (a term he borrows from Nietzsche): which views the

> ...organism as a fortuitous adaptation to a fixed dead milieu. The eye is explained by analogy with spectacles, the hand by analogy with the spade, the organ by analogy with the tool! No wonder the mechanical civilization - which is always the result of a relative stagnation in vital activity and therefore a surrogate for the formation of organs - is mistaken for the triumph, continuation, and extension of vital activity. Thus the infinite "progress" of mechanical civilization becomes the true "goal" of all vital activity, and the infinite development of the calculating intellect is made the "meaning" of life.[13]

Scheler argues that this view of the world, and specifically of the organ, is false because it mistakes the image for the thing itself.[14] When society places human life in the service of technical development and application, human needs are not satisfied.

Social propagation of human lack

Prostheses are operative when we lack. It is by an extension of the notion of lack that prostheses tend towards being used by elements of society for social control. The more prosthesis is emphasized over tool use, the fewer people consider, or are able to affect, a transformation in personal and social conditions. The more reliant people become on prosthetic technologies offered by society the less imaginative they will be when it comes to social possibilities.

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To consider another example, in the realm of architecture the computer may take the form of both tool and prosthesis. Mike Cooley argues that Computer Assisted Design (CAD) could be used to involve a greater spectrum of people in the decision-making process. Computer systems that produce accurate three dimensional representations of an object on the screen, prior to its construction, could be used to make spatial planning more public. For example, "A visual display such as the one described could be made of any proposed municipal building, and local people could be involved in deciding whether they approved of its design and its location."[15] Instead CAD is often being used as "...a tool for silencing the common sense and creativity of the skilled worker on the shop floor."[16] One of his concerns about the use of computers in the design process is that the "...feel for the physical world about us is becoming an abstraction from the real world."[17] Although one might think that these computer usages would augment human creativity and therefore be an example of beneficial prostheses, Cooley advises that this is not the case:

> The complex communications that go on between human beings during problem solving activities are being distanced by the computer and by the systems interfacing the people with the computer...[18]

The computer is being used in ways that breakdown interrelations between persons and between persons and places. The designer no longer needs to go to the site where the building is being constructed, but can rather check on the progress via a computer display. "The designer's drawings will be transmitted through telephone lines and then displayed on the screen so the physical contact between the designer and the site is cut out."[19] The computer may increase efficiency, but at the cost of skill, creativity,

attachment to context, and personal interrelations. When technology is used as a substitute for these elements it may be seen to be a prosthesis rather than a tool. In this case, it is not a tool of the designers because it is not *enabling* them to excel at their work, but is rather detaching them from some of the most fulfilling elements of it. This form of prosthesis is harmful when it is the cause of deskilling and declining sensibility, when it inhibits personal judgment. Cooley equates this use of the computer with Western thought; "The crude introduction of computers into the design activity in keeping with the Western ethic 'the faster the better' may well result in a plummeting quality of design."[20]

Prosthesis may serve technical ends

Ivan Illich argues that society and its members are increasingly put in the service of the technical end of industrial productivity, and that modern technology is a major component of this servitude. When individuals are encouraged to see themselves as lacking in comparison with machines, then prosthetic dependence is promoted, and this dependence serves industrial productivity rather than conviviality. Illich presents an historical analysis of modern technology and explains it in terms of two watersheds:

> At first, new knowledge is applied to the solution of a clearly stated problem and scientific measuring sticks are applied to account for the new efficiency. But at a second point, the progress demonstrated in a previous achievement is used as a rationale for the exploitation of society as a whole in the service of a value which is determined and constantly revised by an element of society, by one of its self-certifying elites.[21]

Prosthesis, in its detrimental form, is useful for those members of society who stand to profit from mass prosthetic dependence. When the majority of society's members replace their personal goals with technical objectives and do not recognize whose

interests this serves, then their prosthetic dependence will only strengthen those that encourage it.

Cooley's analysis is similar to Illich's, in that he highlights the fact that technology often does not serve the social objectives which its designers had intended:

> Regrettably, the history of scientific and technological innovation is strewn with dramatic examples which contrast the dedicated and socially desirable objectives of the academic or researcher with the cynical exploitation of their ingenuity at the level of application by the owners of the means of production. Hence we find in many fields of endeavour a significant gap between that which technology could provide (its potential) and this which it does provide (its reality).[22]

Cooley's concern is that if the historical moment is not understood then a technological course could be pursued that would close off possibilities for more human organisational forms:

> This is likely to be accompanied by the subordination of the operator (designer) to the machine (computer), with the narrow specialisation of Taylorism leading to the fragmentation of design skills and a loss of panoramic view of the design activity itself. In consequence, standard routines and optimisation techniques may seriously limit the creativity of the designer because the subjective value judgements would be dominated by the "objective" decisions of the system.[23]

Tools and conviviality

New technologies are often ushered in by society as proof of "progress," and as an illustration of the power of the human. Because of this conceptualization of technology as progress, and of progress as good, the technologies themselves are not questioned, and they are quickly implemented with little, if any, attention being given to potential consequences. Their application is thought, inevitably, to make things (whatever they may be) "better." When employed in this unreflective manner

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technology threatens the very things it is believed it will enhance. This is not a necessary condition of new technologies, but nevertheless this often occurs because of contemporary society's unquestioning stance towards technology generally. Society needs to become more adept at ascertaining the wider scope of technologies.

We may contrast technological society, which encourages prosthetic dependence, with Illich's notion of convivial society which encourages tool use. Convivial society implies:

> ...autonomous and creative intercourse among persons, and the intercourse of persons with their environment; and this in contrast with the conditioned response of persons to the demands made upon them by others, and by a man-made environment.[24]

He sees conviviality as "...individual freedom realized in personal interdependence and, as such, an intrinsic ethical value."[25] We may see in Illich's notion that conviviality stresses interdependencies, developed through interaction, as intrinsic to personhood; they are displaced by technological society's application of techniques to life.

A convivial society would limit the growth of some technologies while at the same time developing new and more socially appropriate technologies. Illich sees that technology can be inhibiting of personal experience and consequently detrimental to creativity. If we are to maintain our inter-connectivity then we need to recognize that:

> A microphone is not an ear, a camera is not an eye and a computer is not a brain. We should not allow ourselves to be so wrapped up in the technology that we fail to assert the importance of human beings.[26]

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Chapter 3: Emotional Experience and Ethics

We orient ourselves within the world by way of values: "[t]here is an apriori *ordre du coeur*, or *logique du coeur...*"[27]

There has been much speculation in contemporary society about the replacement of humans by machines and the prospects of artificial intelligence. Our concern, however, is less with the possibilities of making machines more human, than the ways we may be making humans more machine-like. When the machine is seen to embody perfection, in comparison the human is seen as lacking; a desire is created, thereby, to alter the human in such a way so as to approach the perfection of the mechanical. The machine, following a strictly cause-effect schematic and more susceptible to explanation and manipulation, is the model, which the human is meant to imitate. Explanation is privileged over understanding. The machine, amenable to human comprehension as the result of human invention, is thought to be what the human should endeavour to imitate; it is believed that the machine is the ultimate expression of humanity, our best achievement. The machine has moved from the position of tool to that of model, or prime example, of what it means to be human.

The machine is an expression of the calculating intellect. Much modern thought has taken the intellect, specifically the calculating aspect, to be the highest and most important element of the human. This type of human rationality encourages the proliferation of technology and the overthrow of "irrational" metaphysics. Instrumental rationality now gets employed widely in the name of progress; the more the world comes to be viewed as a human construct embodying reason, the more the individual human is

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expected to conform to the standards created by the machine. In the words of Jacques Ellul. "[w]e begin with a philosophical conviction about human nature and we come back to an ethical command to identify ourselves with the universe we have created."[28] In this way the machine becomes the measure for human conduct. Because the machine is thought to be the most perfect expression of the human it is thought that the human should closely resemble the machine.

The Enlightenment attempted to wrest humans from the confines of a metaphysical system which gave them a place within nature. thus subordinating them to nature as a whole or the cosmos. Religious metaphysics was dismantled by a mechanistic worldview. which was seen to be more conducive to human liberty as it no longer stretched beyond the realm of the human in order to justify itself. Instead. mechanism reduces everything to the framework of the human. Nature becomes that which is subject to humans. raw material for their use.

Humans are not only a part of the natural world; they have nature within them. Only reason. it was thought. was separate from nature as it alone was capable of possessing and controlling nature. making the natural world conform to the purposes of the human. Thus. although humans have nature within them they may use their intellect. their reason. to control both nature within them and nature outside of them. The affectivity of humans. the ability to be affected emotionally. is considered in some cases bad. but in all cases subordinate. to the intellect.

A consequence of regarding the emotions as insignificant to ethics is that the impact that techniques and technologies have on actual people is often overlooked. since.

from a theoretical perspective that sees humans solely in terms of an instrumentalist rationality. if a technique or technology is more efficient for performing an operation. then it is better than what currently exists and its application or use will inevitably make the situation "better." This "rationalization" of decisions is the result of a misconception of what persons are. and what technologies are for. When conceived in this fashion. technologies become prostheses. In order to illustrate this problematic approach to decisions regarding the use of technologies we will develop a view which not only includes the emotions within the process of ethical judgement. but affirms emotional experience as primary

Decisions about action are widely thought. in our contemporary Western society. to originate in rational thought or intellectual cognition. Phenomenologists often contest this point. and assert that knowledge of what actions to perform originates in emotional experience. These thinkers include Franz Brentano. Alexius Meinong. Max Scheler. and John Dewey. Each argues that it is through emotional experience that we learn which actions we should perform.

In technological society we see the subordination of the emotions to rationality and the consequent de-legitimating of the importance of the emotions to ethical activity. When an individual attempts to repress their emotions. they block their capacity to experience value. hence negatively affecting their ability to orient themselves in the world. Persons orient themselves by way of love and hate; if we deny this basic function of the emotions then we deny that we each have our own places in the world and actions

and directions specific to us. Seeing the human as rational first and foremost makes humans too much the same, leaving little room for uniqueness, except in "flaw."

Viewing the emotions as a primary factor in the determination of ethical comportment allows us to recognize the uniqueness of persons and situations. Rather than seeing ethics as moving from the universal to the particular, i.e. from ethical prescription to act, we move in the other direction. Intuition of values occurs through emotional experience, according to the predominant tradition in phenomenology. Values are not created or produced; rather, they are felt and exist independently of the person who feels them and the objects in which they are perceived to inhere. Recognizing that it is through the emotions that we experience value and that the experience of values informs action allows us to see that the capacity to sense is of the utmost importance to ethical comportment. Persons are connected to contexts by way of values. Emotional experience and action are continuous within context. A rationalistic approach to ethics does not account for the value of connections between persons, and between persons and places. An ethics of this sort is in line with a mechanistic worldview, which is unable to account for the connection between persons and nature except via control. Seeing that emotional experience informs action enables us to understand that the will to control originates in an experience of value.

We may get a clearer understanding of this approach to ethics if we examine Scheler's critique of Kant. Scheler credits Kant with having "...refuted, once and for all, all ethics starting with the question, What is the highest good, or what is the final purpose of all volitional conations?"[29] Nevertheless, Scheler sees Kant's ethics as erroneous in

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the insistence on establishing a moral ought; Kant begins in the wrong place. namely.

with necessity. Scheler claims that necessity of oughtness is itself grounded in the

"*insight into a priori* interconnections obtaining among *values.*"[30] Scheler posits the first

step in ethics as the achievement of insight into the "a priori structure of the realm of

values."[31] His approach to ethics begins with value-perception. or affection. He claims

that the formalistic approach to ethics. which posits the person as rational agent. "reveals

its implicit material assumption that the person is basically nothing but a logical subject

of rational acts."[32] The problem with this approach. according to Scheler. is that it then

presents ethics as if rational activity were the sole component. since it claims that it is the

essence of personhood.

Far from proposing that the person is not rational. Scheler thinks we should view

the person as the totality of their being. which includes rationality and affection. Scheler

contends that a person cannot. as Kant suggests. become a person through obedience to a

rational law since personhood precedes the possibility for obedience. Obedience itself

must be based upon insight. as an action which is willed without insight does not belong

to the person:[33]

> One who renders obedience wills "to obey"; i.e., the *positive act* of obeying
> becomes an immediate volitional project in which the willing of what is
> commanded is formed. A distinct awareness of the difference between one's own
> and another's willing "as" that of another. is the necessary condition of genuine
> obeying.[34]

Obedience is an autonomous act of will that follows the insight of another. but is itself

based upon the "...insight that the person giving the order possesses a higher degree of

moral insight than we do."[35] In order for obedience to have moral relevance it must follow from the insight into the value of the commander's insight.

If we assume, along with Scheler, that human action is not based solely, or even primarily, upon rationality, then we may propose that we orient ourselves in the world firstly through our senses and only secondly, abstractly, with rational insight. Just as we sense colour through seeing we sense values through feeling, or "...values are given in feeling..."[36] The capacity to sense values is important to ethics as it enables the insight which is necessary for ethical action. It is upon our sense of values that moral imperatives are based. The less capable we are of sensing values the less appropriate will be our actions:

> Moral willing and, indeed, moral comportment have their foundation in this value-cognition..., with its own a priori content and its own evidence, in such a fashion that every willing (indeed, every conation) is primarily directed toward the realization of a value given in these acts.[37]

Dewey's interest in emotional experience is quite similar to Scheler's: emotional experience is participatory activity:

> For emotion in its ordinary sense is something called out by objects, physical and personal; it is response to an objective situation. It is not something existing somewhere by itself which then employs material through which to express itself. Emotion is an indication of intimate participation, in a more or less excited way in some scene of nature or life; it is, so to speak, an attitude or disposition, which is a function of objective things.[38]

Emotions derive their significance from their connection with the objective world. Emotions, as indicators of participation, signify the action of the individual within a context, or environment. Attention to the importance of the emotions to ethical considerations, then, is inclusive of the context, however unique, which called out those

emotions.

When philosophy rejects affect as a directive for action, the technical is easily valued over the human because context is more easily ignored. Without an understanding of the role that the affections play in personal orientation there is no way of accounting for the importance of context to human life. When context is ignored then all that is unique and particular goes unnoticed and technical efficiency appears as most valuable. Since we look for explanations rather than understanding, we rely on the rational and reduce everything to a mechanistic schema. In this way, then, the functioning of a machine makes more "sense," because it is explicable rationally, than the actions of persons. Rationalism gives priority to (problems of) criteria and thereby privileges the technical over the personal:

> He who is always inclined to ask for a criterion first of all – a criterion of whether this picture is an authentic work of art, say, or whether any extant religion is *true* and which one it is – is a man who stands outside, who has no *direct* contact with any work of art, any religion, any scientific domain.[39]

Giving priority to criteria is a product of Enlightenment thought; "...for the enlightenment the process is always decided from the start."[40] To decide the process from the start is to ignore the particular, which is made manifest through experience. When criteria are given priority technique is priveleged. This can be seen as a result of disembodied rationality, rationality divorced from personal experience and thereby separate from context.

Disembodied rationality leads to the belief that the affective experiences of the individual are negative factors in determining the actions that they perform. Further, it leads to a rejection of the individual's relationships and interdependencies. It presents the

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individual as de-contextualized, and promotes the idea that the context in which the individual lives is irrelevant. Context, however, is profoundly relevant to individuals, and is only presented as irrelevant when standardization is desired. Persons live in contexts and it is through contexts wherein values are perceived. De-contextualization is synonymous with de-personalization, and both enable standardization. Standardization cannot account for subjectivity.

Dewey contends that to see rationality as the sole influence upon action is to disconnect nature and experience:

> When intellectual experience and its material are taken to be primary, the cord that binds experience and nature is cut. That the physiological organism with its structures, whether in man or in the lower animals, is concerned with making adaptations and uses of material in the interest of maintenance of the life-process, cannot be denied. The brain and nervous system are primarily organs of action-undergoing; biologically, it can be asserted that primary experience is of a corresponding type. Hence, unless there is breach of historic and natural continuity, cognitive experience must originate within that of a non-cognitive sort.[41]

Emotional experience is part of our participation in our environment; the fact that we are affected shows that we have participated. If, because of technical restraint or mediation, we are less affected by situations in which we are involved, then we are participating less, becoming passive and isolated, rather than active and inter-connected. Our emotional experience serves as material for conceptualizations of moral imperatives. When, however, cognitive experience, such as the conceptualization of moral-oughts, does not originate in emotional experience then there is a breach in continuity. We may understand this to mean that if an individual's conception of what to do originates from cognitive experience without guidance or prompting from emotional experience, then

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they are unable to recognize a continuation of their experience in their actions. Conformity to social norms is sometimes due to this sort of breach, and when it is the individual is not acting as a person.

Scheler thinks that we learn the reasons for our actions not through obedience to a rational law but through experience, specifically experiences of value.[42] Any ethic which devalues emotions simultaneously devalues persons, as it is through emotions that persons experience their lives as valuable, and understand the value of others. Scheler's value theory attributes priority to values, rather than to facts. He claims that a doctrine of values and the doctrine of logic stand side by side, and that the emotions have a priori contents. Values precede factual conceptions and are signified in feeling. Scheler holds that the value of a thing comes to experience before the thing itself, and that the value is independent of the thing. "Goods" may change over time and with respect to different people, but values do not. In other words, a rose may be considered lovely by some, and ugly by others, but the values of beauty and ugliness themselves are static and are maintained, regardless of what they are perceived to inhere in. It is in this way that Scheler is able to claim that there exists an objective hierarchy of values. This order of ranks of values, or hierarchy of values, consists, from highest to lowest, of: the holy, spiritual, vital, and sensuous values. Holy values and spiritual values belong to the realm of the person, while values of life and sensuous values belong to life. From this it should be noted that the higher values do not cancel out the lower values, but take precedence over them. Ideally all values have their proper order and relations to each other.

Through a detailed examination of Scheler's value theory we will see that contemporary society, in privileging utility over vitality, threatens the possibility for moral action through proliferation of prostheses. Values of utility, according to Scheler, refer to sensuous values, or enforce vital values. If they do not do this, then they are not properly values at all.[43] This false ranking is termed value-deception by Scheler, and is deceptive in two ways. Firstly, values of utility belong to the lowest realm of values, and can therefore never properly be valued over the higher values of life. "Every value of utility is a value 'for' a living being. Something is 'useful' if it is a controllable cause for the realization of a good that is agreeable to the senses."[44] And secondly, values of utility are never valuable in themselves, but only insofar as they refer to sensuous or vital values.

In contemporary society we are constant witnesses to this value deception. It can be seen in the apotheosis of technology and notions of "progress" as goods in and for themselves. This poor sight is further illustrated by the physical illnesses which result from our technologically "enhanced" lifestyles. In industry and in everyday life machines create pollution that contributes to a variety of physical illnesses. Cleaning fluids are carcinogenic, car exhaust causes respiratory illness, cell phones have been linked with cancer, pesticides alter the human endocrine system, and antibiotics weaken resistance to infections. When we judge the utility of these various technologies as more important than the cost of vitality then we are committing a value deception. When we evaluate these technologies we should consider their utility for vitality.

The problem with this inversion of the rank of values is one of scale. It has become generally understood that utility is the highest value. This "...perversion of the hierarchy of values..."[45] is the result of a modern morality, wherein

> ...the merchants and representatives of industry came to dominate[:] ... their judgments, tastes, and inclinations became the selective determinants of cultural production even in its intellectual and spiritual aspects.[46]

The values of the merchant and the industrialist are not problematic per se, but what is an issue is that "...the qualities that enable this particular type of man to do business, are set up as *generally valid* (indeed the 'highest') *moral values*."[47] When the values of the merchant and the industrialist are taken to be generally valid, then all members of society are encouraged to orient themselves by way of the business interests of a small sector of society.

> This type of value deception, according to Scheler, results from *ressentiment*;

> ...a self-poisoning of the mind which has quite definite causes and consequences. It is a lasting mental attitude, caused by the systematic repression of certain emotions and affects, which, as such, are normal components of human nature. Their repression leads to the constant tendency to indulge in certain kinds of value delusions and corresponding value judgements.[48]

Scheler sees this *ressentiment* leading to a transvaluation of values, which results in the denial of the existence of an objective hierarchy of values.[49] This is the origin, according to Scheler, of the modern notion of the subjectivity of values, which he sees quite clearly in Kant. The modern world, because of its transvaluation of value, is no longer capable of seeing the intrinsic quality in life itself; rather, everything gets subordinated to utility. Every individual's existence requires justification by way of their degree of usefulness for a larger group.[50]

In this modern society, the human must adapt "...to the mechanism of utilitarian civilisation and the human activity it happens to require at the moment..."[51] This description is close to Ellul's examination of *The Technological Society,*[52] according to which it is not the machine that has been adapted to the human, but rather the other way around. Various *techniques* for the adaptation of human to machine have developed in modern society: technique represents any complex standardised means for attaining a predetermined result. It is the method whereby spontaneous and unreflective activity is converted to deliberate and rationalised behaviour. When humans are viewed as material for the technological system rather than valuable in their own right, then they are molded so as to fit the current needs of that system. There is no support, then, for reflections upon that social system, but only ways of adapting humans to the system. Some examples of the application of technique to humans for the purpose of socio-technical adaptation can be observed in public education, medicine, and advertising. These techniques are used to overcome what Leonard J. Waks, in an analysis of Ellul, calls the "human barrier." The human barrier is what has been reached when individuals refuse further regimentation and run away, revolt, or break down.[53] These techniques are prostheses in the negative form as their purpose is to replace the human sensibility, which leads to protest or exhaustion, with a willing conformity to technical demands.

The machine is seen to hold intrinsic value. More and more western society values individuals who represent a detached rationality and are unhindered by emotional attachments to others, or to the earth. Ellul terms this form of human the "joyous robot."[54] When we cease to value tools for connecting us to the world, then tools become

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part of us, such that we are no longer capable of attending to, nor assessing, them. When we become tools, when the technologies we use are substitutes for our humanity, and we are reduced to our functionality, our utility to a system, then we are dealing with prostheses.

Chapter 4: The Effects of Prosthesis on Personhood

Prosthesis, in inhibiting our sensibility, endangers personhood because value experiences, which are necessary for ethical considerations and actions, are less possible. Prosthesis is inhibitory because it has its origins in a will to control, which is closed to the world, rather than an attitude of love, which is open. The more technology is viewed as the highest expression of humanity the more the natural world is stripped of any significance other than utility. When nature comes to be seen as raw material for human purposes it is approached with an attitude of hostility or control. This attitude of control hinders any possibility for insight into the value of that world.[55] An attitude of hostility (which is seen in Kant's distrust of the given as chaos)[56] may be equated with the will-to-control, and has its opposite in an attitude of love. These two opposed stances toward the world make up what Scheler refers to as the foundations for the two attitudes of cognition.[57] Both technology and Kant's primacy of the moral ought are seen by Scheler to be results of the will to control.

Humans approach nature, according to such a will, with their intellect, which seeks to impose order upon its field of experience, rather than with an openness to experience connected with an attitude of love. When reason is split from the emotions everything gets subordinated to it; thus, technique, with its statistical proof of rationality, cannot be refused unless one refuses to acknowledge reason as the sole ruler of humankind. Herbert Marcuse describes this new perception of nature as "...a realm to be comprehended and organized by Reason."[58] He goes on to explain that humans have not

escaped the fate which they assigned nature: civilization "...has treated Nature as it has treated man - as an instrument of destructive productivity."[59]

Scheler's phenomenological approach places ethical consideration at the core of the process of determining what to control. His notion of phenomenology as a "procedure of seeing"[60] is central to ethics; any decrease in "sight" of this sort will lead to an inhibition of ethical activity. Since ethical activity belongs to the sphere of the person, hindrance of "sight" is detrimental to the realm of personhood. Scheler holds that this insight is achievable through an attitude of love towards the world, and is hindered by an attitude of control. Prosthesis, when resulting from the privileging of utility over vitality, originates from the will to control and may be understood as hindering insight into the a priori realm of values, thereby potentially inhibiting possibilities for ethics.

Of importance here, for Scheler, is that values must be felt; if not felt, then the actions of the person may not be considered morally wrong, as moral liability is based on a corresponding intuitive ability. This case is perhaps best illustrated by Scheler's exclusion of the mad from the realm of personhood. When dealing with a person whom we consider mad, "'[w]e cease to see meaningfully directed intentions that end in his life-expressions... 'understanding' becomes 'explaining'; and the 'person' becomes a piece of nature."[61] The mad do not share insight with others. Without insight into the a priori, no moral ought may be formed, and no moral responsibility is possible.

Madness, in the reduction of persons by way of explanation in terms of cause and effect analysis rather than understanding,[62] is similar to childhood. In the inability to see

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another way, childhood resembles an inability to see in the machine something that
resists, and consequently shapes, our will:

> ...[A] man is not of age as long as he simply co-executes the experiential
> intentions of his environment *without* first understanding them, and as long as the
> forms of *contagion*, plain *cooperation*, and *tradition* in a wide sense are the basic
> forms of the transference of his own mental state to others. He is immature as
> long as he plainly wills what parents and educators or anybody else in his world-
> about want him to do without recognizing, in willing these specific contents, the
> will of someone else or a person different from himself.[63]

When we accept technologies as prostheses without evaluation we are immature because
we recognize neither the will nor the intentions of someone else (e.g., if one allows the
television to dictate one's style of dress, without also recognizing the intentions of the
television producers and advertisers):

> The individual's way toward insight into values and their relations can still be
> mediated by authority, tradition, and fidelity. His comportment nevertheless
> remains autonomously evidential if he has clear insight into the different
> cognitional values of these possible sources of moral insight, and if he respects
> these sources – in addition to the source of his own individual life-experience –
> according to their evidential and general value.[64]

The individual maintains their moral autonomy if they have insight into the value of the
authorities and respect them.

Western technology, which constantly advances human power over nature, does
so not in the service of humankind but in the service of a mentality of control, and the
results are detrimental to the human species. This mentality, or in Scheler's terms,
attitude of control, has "freed" humans from Nature by alienating them from it,[65] a
process which has served to alienate them from each other as well. The will to control
did not, because it could not, stop at nature but moves through individuals within society
by way of normalization, standardisation, and mechanization. The more mechanized

society becomes, through greater and greater administration, the less of the person may survive. As long as people are unable to differentiate between their own unique experiences and the pre-fabricated experiences induced by society, the lesser are their possibilities for attaining personhood.

As was discussed earlier, the tool signifies a bond between nature and humans. The more humans see themselves to be separate and disconnected from nature, the less they are aware of the connection between themselves and their tools. With this lack of awareness comes an alteration of the perceived function of technology, and consequently, an alteration of (the actual functioning) of the human. Technology only has value insofar as it may enhance the vitality of the person, or procure sensuous pleasures.[66] When more and more tools become prostheses then it is as Ellul claims, and technique (which was modelled from the machine) is responsible for adapting humans to machines and integrating everything.[67] Subsequently, not all humans may be considered persons in Scheler's sense of the word. The more highly technicized society becomes, the less personhood is possible.

The reason for the decline of personhood with the ingestion of machinic elements, via prosthesis, is that the individual loses their moral sense. They become passive towards their environment, unable to differentiate between their own will and the will of another (the other, in this case, being a mechanical entity). Scheler sees this inability to differentiate in children, and this is why he precludes them from being considered persons in the moral sense.[68] Those members of contemporary society that have given up

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too many tools in exchange for prostheses, and as such have been both standardised and normalized, may also be seen to have been infantilized.

Scheler sees standardization as stemming from a disregard for "spiritual individualism":

> For the theories of Stirner, Kant, and their successors have at bottom the *same* deficiencies: the *disregard of spiritual individualism* and the assumption that only the lived body individualizes the person. No wonder that this conception of "drive individualism," so common in the realities of modern life, leads *in fact* to something that is quite contrary to this kind of "individualism": large-scale *objective uni*formity of the being and life of these "individualists" to the extent that one can almost predict the nature and actions of others from only *one* example.[69]

When persons are considered individuals solely because of their lived-body and not also their spirituality, which is inclusive of ethics, aesthetics, and knowledge, then they will tend to be much the same. If, however, one's preferences and experiences are included in their individualization, then their actions will by highly unpredictable and their natures quite diverse.

Prosthesis may be seen as a form of domestication. John A. Livingston compares the actions of domestic animals to their "wild" counterparts. Domestic animals have become deficient in their ability to communicate amongst themselves and are no longer sensitive to "interspecies information exchange."[70] He thinks that this is a result of a prolongation of infantality through the whole of the individual's lifetime. This curbing of social maturity reinforces dependencies and wards off the formation of mutuality and interdependence,[71] which are "natural" developments of any species. If we take his model of domestication and apply it to contemporary culture we can see that dependence on technology can break down personal interdependencies, prolong infantality, and

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desensitise individuals to worldly interconnections. The result of human technological

domestication is moral regression and alienation from the world; the only escape is.

perhaps. madness. Foucault describes this alternative as occurring

> ...when man remains alienated from what takes place in his language. when he cannot recognise any human. living signification in the productions of his activity. when economic and social determinations place constraints upon him and he is unable to feel at home in this world. he lives in a culture that makes a pathological form like schizophrenia possible . . . because our culture reads the world in such a way that man himself cannot recognise himself in it.[72]

When we transform all aspects of personal existence and experience into the language of

the machine (cause. effect. efficiency) we are depersonalized and accept our environment

like children. or attempt escape through madness. Either way. personhood becomes less

possible. Organic nature is no longer perceived to hold intrinsic value; it becomes merely

instrumental to human ends. Human ends are measured by reference to self-preservation.

"Whoever resigns himself to life without any rational reference to self-preservation

would. according to the Enlightenment. . . regress to prehistory."[73]

As we have seen. the technological advancements associated with Enlightenment

philosophies did not give way unambiguously to greater freedom. and they promote a

worldview that focuses on the self. through self-preservation being the guiding principle

for human action. This focus on self. at the exclusion of all other elements of the world.

alters perception of that world. We have seen this alteration in the notion of

instrumentality. The abandonment of metaphysics coupled with an increase in the

autonomy of reason leads directly to an utilitarian perspective on the world carried within

a mechanistic worldview. Everything becomes quantifiable. and only reason. which has

become synonymous with a calculating intellect (divorced from ethics and aesthetics),

may decide the worth of this or that thing. The intellect knows no bounds. Any limit or direction could only be achieved through a value-ception. Since the intellect is placed prior to the emotions, the emotions are suppressed, and no perception of value is possible. Humans approach nature, then, with their intellect, which seeks to impose order upon nature, rather than with an openness connected with an attitude of love, which would allow for value-ception. Without this value-ception there is no intrinsic worth of persons, for when reason is split from the emotions everything gets subordinated to it, including human life. And, thus, prosthesis of various sorts is presented as the only rational choice.

Now, when only what is useful is considered valuable we have a paradoxical situation. When utility becomes the measure of all value, more time and effort is spent on the production of useful objects, objects to increase enjoyment. What happens, however, according to Scheler, is that the increase in useful objects leads to a decrease in experiences of pleasure. Life experiences become de-intensified and less enjoyment results: "The abundance of agreeable stimuli here literally deadens the function of enjoyment and its cultivation."[74] This decrease in enjoyment does not, or has not, led to an alteration of approach, but, rather, to an increase in production of those objects which are mistakenly thought to lead to greater pleasure. For example, television in our culture has become a surrogate for actual experience and personal interrelations. It morphs into a prosthesis when people forget how to enjoy themselves without the aid of this device. The same may be said about many forms of entertainment, such as video games, movies, "junkfood," and recorded music. Every year more and more channels are available for those hungry to plug into more television than they could ever possibly watch. This is

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obviously a result of the notion that television is enjoyable. and that more of it will lead

to greater enjoyment. (Note that this notion is based upon the belief that pleasure is

quantifiable.) This is a case of value-deception, occurring when a lower value, such as

utility, is chosen over a higher value, such as that of vitality, or spirituality.[75]

The decline in ability to experience pleasure with the increase in technology can

be seen to signal a greater difficulty in the ability to experience, which extends beyond

the sensuous realm. In fact, if we take Scheler's hierarchy of values, an inability to

experience pleasure would signify an inability to experience any higher value as well.

Horkheimer and Adorno attribute this decline to the "over-maturity of society."

Accordingly:

> The more complicated and precise the social, economic, and scientific apparatus
> with whose service the production system has long harmonized the body, the
> more impoverished the experiences which it can offer.[76]

Since technology may be seen to impoverish experience, then the modes of

alteration of experience should be a major component in the evaluation of technology. A

major trend in contemporary society is to view technological experiences as equivalent to

non-technological experience. Thus going from home to school is considered the same

by way of car as it is by way of foot, except that the car is faster. We fail to take into

account that the same excursion by foot leaves open a wider realm of possibilities for

interrelations. While walking one feels the wind, smells the surroundings, and

encounters people, animals, and a variety of things both organic and inorganic. While

driving one may observe some of these things but does not experience them in the same

way. The experience is less full, but more efficient:

What is philosophically remarkable and evident even now is that there is a widespread and easy acceptance of equivalence between commodities and things even where the experiential differences are palpable. People who have travelled through Glacier Park in an air-conditioned motor home, listening to soft background music and having a cup of coffee, would probably answer affirmatively and without qualification when asked if they knew the park, had been in the park, or had been through the park. Such people have not felt the wind of the mountains, have not smelled the pines, have not heard the red-tailed hawk, have not sensed the slopes in their legs and lungs, have not experienced the cycle of day and night in the wilderness. The experience has not been richer than one gained from a well-made film viewed in suburban Chicago.[77]

The more we recognize the effects of technologies on our perceptions and experiences the better we may judge when and where to utilize them. Returning to the car, if we need to get to the school quickly then the car might be the best means of getting there. If, however, we think it important to develop, nurture, and maintain relations with the places we pass through, then we might decide to walk. Never walking to school means that we do not really know what exists between home and school, as we have not experienced it. Our knowledge is limited to what we can see through the car window while concentrating on our driving.

Many people no longer conceive of travelling by other means. The car, in being perceived as more efficient, is considered the best form of transportation. Consideration of efficiency has become the predominant factor in decisions regarding action and precludes other factors such as health, personal interaction, aesthetics, and unique and spontaneous experiences. When viewing things only in terms of efficiency we are not fully using personal judgment, but only the "rational" element. We are considering the world from a technological perspective and failing to attend to the multiple ways of

experiencing the world. Subsequently, we fail to consider things from a personal perspective, which may include efficiency concerns but is not limited to such.

The car is a catalyst for radical transformations in our environments (roads, highways, parking lots); it has altered everyone's ways of experiencing the world and interacting with each other. Our concern is with how the car affects how individuals view the world. For example, what, in some cities, has become unbearable pollution, most people recognize is connected with high levels of automobile use. Few people, however, alter their actions so as to reduce their contribution to pollution. Pollution is seen to be a "necessary evil," the "cost of progress." In other words, the negative effects of our technological actions are viewed as necessary conditions. We seek to "control" the world, but not our technologies. This orientation towards technology is a type of addiction.

When we judge technology solely by the criteria of efficiency, then we are judging it by way of technological thought, rather than personal, community, or social values. Technologies become for us prostheses, in that we allow our experience of the world to be both shaped, and narrowed, by them. The problem with this is that we are taking up the world prosthetically without making a distinction between prosthetic and non-mediated experience. When we experience the world predominantly through various prostheses we do not cultivate our personhood with fuller experiences.

Chapter 5: Experience, Imagination, and the Ethical Organ

"Why have we submitted to a society that tries to make imagination a privilege when to each of us it comes as a birthright?" [78]

Technological society promotes prosthetic conditions which make meaningful and spontaneous experiences less possible. As our sensorial capacities are constrained by prostheses we are losing the insight we need to develop ourselves as persons. When we rely on prosthesis to experience for us, then we do not strengthen our personal sense and judgement. Prosthetic dependence has weakened our judgement. We are immature, in Scheler's sense, in that we are unable to differentiate between our own will and the will of another. Also, we are overly mature in that we are rigid in our perceptions. These conditions are detrimental from the perspective of personhood. The positive social conditions for personhood would promote youthful experiencing and mature judgement, the opposite of what is currently promoted.

There is much, then, that we may learn from the child's ability to perceive the world as a totality of essences and interconnections. Perception of the world as whole, full, and interconnected, enables a wide range of possible experiences as there is a great variety of things to sense and ways to sense them. This type of perception is something which is lost with the over-training of our minds and senses. This training occurs through the ingestion of technique, which strips us of our ability to experience the world in a fresh way, and inhibits our moral development. We are left with the problem of how to achieve a child's insight in order for us to achieve, or retain, moral agency, while at the same time developing our judgement.

Phenomenological analysis of concrete experience shows the relevance of childlike experience. Scheler contrasts the phenomenological approach with method:

> A method is a goal-directed procedure of thinking about facts. for example. induction or deduction. In phenomenology. however. it is a matter. first. of new facts themselves. before they have been fixed by logic. and. second. of a procedure of seeing.[79]

Children are open to new facts and have active imaginations. Imagination is a crucial aspect of ethical insight and judgement. One must be able to conceive of things being other than how they are in order to judge the value of present conditions. If the conditions of one's existence are perceived as static. determined by necessity. the imagination is not active and value experiences that would lead to the establishment of individual moral imperatives are less likely to occur. When necessity comes prior to experience. then value-ception is hindered.

Scheler's notion of phenomenological experience is similar to the positive elements of the child-experience in that both require an openness to the world. but dissimilar in that the child lacks the possibility for morality. Scheler would like to give us back the eyes of a child. in order to be open. or be attuned. to the world. but within the framework of a mind capable of conceptualising what ought to be. This conceptualisation occurs within the realm of personhood. wherein moral acts are possible.

Conceiving of the ethical capacity of humans in terms of an organ is a useful metaphor, since maintenance of this capacity requires nourishment and exercise. The nourishment of our ethical organ is provided by experience. and its exercise is judgement. The imagination aids the ethical organ by acting as a bridge between perception and

conception: it enables the transformation of perceptions into creative conceptions. which then allows for more diverse and unique perceptions. The less imaginative the conceptual capabilities. the more the perception of the unique and diverse is filtered out. or forced to conform to narrow conceptions of the world. Since our concern is personal development. we must understand the importance of the imagination to this process.

In "Orchids and Muscles." Alfonso Lingis expands upon the ideas of Andre Leroi-Gourhan. and explains that the exteriorization of human organic functions has historically led to the atrophy of the sensorial capacities of those organs. The harnessing of motor power led to muscular atrophy. while reason. sight. and judgement were strengthened in order to maintain surveillance:

> Today our technological civilization has entered into an information-processing revolution – which is also a new state of our biological evolution. Computers henceforth assemble and evaluate data. and make the decisions. The faculties of memory. reason. and decision – evolved in our nature through the history of our civilization – now begin their atrophy.[80]

In line with the theory of prosthesis thus far advanced. we may see that what occurs with prosthesis is the exteriorization of moral insight. Although we may not lament the decline in our muscular capabilities. we have become conscious of our capacity to influence the creation of ourselves; we are in a position to judge what changes to make in our world given their consequences for the human species. Ethical atrophy would mean slipping out of the realm of personhood. that place wherein we experience value. understand and create meaning. and entertain the notion of acting well.

Ethical atrophy is the danger which technological society presents to us. In providing so much information on how to do this or that. by making explicit what one

should do, by organizing our time and our lives into compartments, we risk losing our

capacity for moral insight through the surrender of experience by way of the prevalence

of clearly demarcated paths:

> The scientific verification of experience which is enacted in the experiment –
> permitting sensory impressions to be deduced with the exactitude of quantitative
> determinations and, therefore, the prediction of future impressions – responds to
> this loss of certainty by displacing experience as far as possible outside the
> individual: on to instruments and numbers. But traditional experience thereby
> lost all real value . . . experience is incompatible with certainty, and once an
> experience has become measurable and certain, it immediately loses its
> authority.[81]

Technological society, in providing us with a world wherein we find safety, presents us

with the danger of personal death. In fact, the only way to be safe is to be unable to

imagine. As long as one imagines, one understands the dangers inherent in life.

Learning to appreciate the importance of danger to life is part of personal development.

Definitive oughts to guide our actions face the problem of changing conditions in relation

to danger and death.

In contemporary technological society we increasingly rely on technology to

"experience" for us. Jeanette Winterson is concerned that the uniquely human may be

lost: "Not rationality, not logic, but that strange network of fragile perception, that means

I can imagine, that teaches me to love, a lodging of recognition and tenderness where I

sometimes know the essential beat that rhythms life."[82] She claims that our society does

not value the sensitive human, but, rather, sensitive machines. Sensitive machines detect

and process information, while sensitive humans feel and experience. These feelings and

experiences are the stuff with which one obtains insight and understanding into one's

world, oneself, and others. Conversely, machines obtain neither insight, nor

understanding, but may be programmed to analyse and provide explanations. Always, with machines, we are able to explain their functions by a cause-effect schemata. If we reduce the person to a cause-effect schemata, we speak of the madperson. Valuation of the sensitive machine, when conjoined with the devaluation of the sensitive human, excludes personal thought, expression, and action. A function of technological society is the disablement of the person via prosthetic dependence.

Contemporary society lacks imaginative capacity in that people are unable to conceptualize other ways and other worlds of life. We decrease our capacity for value-feelings as we become perceptually blocked by our prosthetic parts. This is how our ethical capabilities are endangered. Formulation of moral oughts is integral to personhood, but these imperatives are impotent unless we can feel first and cognize later. Otherwise, as mentioned earlier, we risk falling into the position of Scheler's madman, whose actions are reduced to explanation via cause-effect schemata. We should be aiming towards Dewey's human plane where we examine our appetites and desires within our reflective imagination. All these are necessary for personhood: technological society alters these human ways endangering ethical possibility.

Chapter 6: Experience as Art

The contemporary reluctance to account for the importance of personal experience may stem from the advent of modern natural science. It may be seen that experience has been problematic ever since:

> ...[A]gainst repeated claims to the contrary, modern science has its origins in an unprecedented mistrust of experience as it was traditionally understood. (Bacon defines it as a 'forest' and a 'maze' which has to be put in order). The view through Galileo's telescope produced not certainty and faith in experience but Descartes' doubt, and his famous hypothesis of a demon whose only occupation is to deceive our senses.[83]

Science locates experience in technology in order to make it verifiable. As we have seen, however, verification is incompatible with the kinds of experiences necessary to persons. Experience, then, needs to be removed from technology and returned to persons.

When value, as the stuff of ethics, is seen as separate from existence, the stuff of science, then "...science...becomes brutal and mechanical..."[84] Science, when used to lend authority to law and separated from ethics, inhibits value experience; it promotes an attitude of hostility and closes off the openness required for value-experiences. When viewed as art, however, science contributes to value experience, as value would not be judged as separate from existence and existences would be judged evaluatively.

Dewey defines art as any experience that is simultaneously instrumental and consummatory. The separation of production and consumption, and the exaltation of consummatory experiences, corrupts the meaning of art and promotes the separation of arts into the useful and the fine. Many of our activities, however, cannot go by the name

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of art; these include our labours and our enjoyments. Our labours are neither useful in a meaningful sense, nor enjoyable: "We bring into view simply their efficacy in bringing into existence certain commodities; we do not ask for their effect upon the quality of human life and experience."[85]

Dewey contends that when science is divorced from art it invokes law and necessity against the free and spontaneous.[86] Accordingly, the individual is unable to see their life in terms of art, or themselves as creators. Science replaces free, spontaneous activities and experiences of individuals with laws and necessities taking the form of standards and norms. Science separated from art lends authority to the perception of need for prosthetic alteration. Conversely, when science is art it "...confers upon things traits and potentialities which did not previously belong to them."[87] Science as art brings into existence new possibilities for experience; it brings to light new material that is useful for personal and social development. Conceived as art, science is enhancing. When it hinders the individual's capacity for experience by applying law, then it potentially diminishes personhood.

Contemporary society, by privileging the machine, disables people from recognizing and consequently putting to use their creative capacities. Human life and experience, as art, is empowered to "...make the world a different place in which to live."[88] The individual is an active participant in life and society rather than a passive recipient of mechanized ideals. Art, receiving its power from the imagination,[89] exemplifies the importance of the imagination to life and ethics.

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When means and ends are rejoined and the importance of their interconnection is understood, then power and life are conjoined. Science is the knowledge of how to transform certain natural states so as to yield new possibilities; when seen as art it is recognized as having the power to transform reality. The actual transformation of reality can be evaluated both as a process and as a finished object. Work is then rejoined with enjoyment and meaning in human life, and becomes the creative construction of the conditions of human existence, both individual and social. When work is not creative, then power and life are divided. Life gets its power from art, and art gets its power from the imagination.[90] Imagination is the ability to conceive of things other than how or what they are. Prosthesis replaces the imaginative capacity of people and inserts explanations, statistics, and rules where understandings, metaphors, and possibilities used to be. In other words prostheses tend to rigidify the conceptual abilities of persons by introducing conceptions that seem necessary. When this occurs, the individual's conception of reality is disconnected from their experiences; consequently their actions are not derived from value experience, but from a socio-technical rule. When prosthetic dependence is too great, the individual is thus denied their personal history as well as their connection to social history.

Dewey sees the prevalent distinction between useful and fine arts, which he maintains is a false division, to be illustrative of a larger social problem. In order to show the fallacy modern thought commits in this area, he contrasts it with Ancient Greek thought, according to which experience is art "...born of need, lack, deprivation, incompleteness."[91] Practical activity is thus viewed as inferior to theoretical activity.

Dewey considers the Greek view to be self-consistent, and the modern view a "...curious mixture..." Modern thinking does not link nature and art; rather it sees science as "...the only *authentic* expression of nature, in which case art must be an arbitrary addition to nature."[92] This theory fails to recognize "...the commonplace of Greek observation, that the fine arts, as well as the industrial technologies are affairs of practice."[93] In order for modern thought to achieve a position of self-consistency it needs to recognize the importance of the practical, generally conceived, and the subordination of theories to practices. With our conceptions, the stuff of our theories, we act in the world and thus extend our perceptive capabilities. Participation is the aim of theory. Participation is effective and affective participation – the ability to affect and be affected by our relations with people, nature, and society. We are effective to the extent that there is continuity between our perceptions and our conceptions. Our practice is enhanced when our theory is informed by experience. The problem of contemporary society is that people have lost their effective capacity because their individual experiences are unable to inform their theories and contribute, then, to their actions.

When people's work is divorced from their life, and is, thereby, neither meaningful nor enjoyable, their enjoyments will tend to be merely fleeting pleasures, having no utility in their self-development. Their experiences fail to become the material or impetus for further reflections and meaningful activity; such experiences merely aid in the maintenance of passivity. This problem, which we have tried to show is prevalent in technological society, is evident in the overwhelming separation of production and consumption. People see themselves as playing double and disconnected roles as worker

and consumer. People work in order to consume; they do not recognize the importance of activity to the generation of meanings, thus losing control of the very meaning of their lives.

When we recognize technology and technique as related to art, then we increase our capacity for judgement. Technology as art is good to the extent that it makes possible future consummatory experiences and is enjoyable. When technology is not art, experience is stifled: the individual swallows the pre-fabricated shells of experience of a technological system, rather than being an active participant in their mode of experiencing. Art enlarges people,[94] and thus aids people in becoming through growth, as opposed to being trained[95] with the use of prostheses. This is the difference between personal and mechanical judgement.[96]

As an example, consider Cooley, and his fellow workers at Lucas Aerospace, who "...evolved the idea of a campaign for the right to work on socially useful products."[97] It seemed absurd to them that they had skill, knowledge, and facilities that society needed, "...yet the market economy seemed incapable of linking the two."[98] Their campaign, convivial in nature, aimed to link workers and communities. An example of the sorts of things that they began to do is the HOBCART. The HOBCART was developed after some of the members visited a centre for children with spina bifida and saw that these children could only propel themselves by crawling.

> Mike Parry Evans, its designer, said that it was one of the most enriching experiences of his life when he carried the hobcart down and saw the pleasure on the child's face. It meant more to him, he said, than all the design activity he had been involved in up till then. For the first time in his life he actually saw the person who was going to use the product he had designed. It was enriching also

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in another sense. because he was intimately in contact with a social human problem.[99]

The Lucas workers developed a series of products similar to this one in that they link the designer. worker. and user. The HOBCART is an example of technology as art since its design. construction. and use are each both instrumental and consummatory. The designer enjoyed the process of making it. and the experience. as an enriching one. will carry over to his future projects. One might be inclined to think of the HOBCART as a prosthesis for the child who would use it. but it need not maintain this status. As was said earlier regarding the artificial limb. it is a prosthesis until the individual learns to use it. through the process of appropriation.

Now. our contention has been that prosthesis inhibits ethical capacity when individuals substitute technical images. standards. and norms for the conceptual culmination of their personal experiences without the realization that in the process they are ingesting the will of another. putting themselves in service of a technical end rather than a personal goal. But. if we may see. with Dewey. that science and technology are more properly conceived as arts. then the importance of the human imaginative capacity and the value of individual experiences are maintained. Thus conceived. science and technology serve life. specifically human life. by enabling the transformation of things into things possessing more. and different. potentials. Science and technology as art enhance human life by laying open the possibilities for creative and meaningful endeavours. Without recognizing human creative capacity. individuals do not see the importance of their emotions nor their experiences and are thus disconnected from the material they need in order to determine their activities. As a consequence their activities

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cannot be said to be truly their own, as they are not freely engaged in, but done for the sake of an end which is only another means.

In technological society, activity is seen as work, but the necessity of work is misconceived; it is seen as something from which escape is desirable. But a human who doesn't work is inactive and passive. Passivity is seen as the privilege that technological society offers. Rather than working to construct the components of their existence people acquire them pre-fabricated. This is properly seen as the surrender of creative control, which leads to a decline in personhood. As Harry Braverman explains: "In human work ... the directing mechanism is the power of conceptual thought..."[100] When conception is divorced from execution "...workers are reduced almost to the level of labor in its animal form..."[101] In order to conjoin power and life we need the conceptual capabilities of an adult, but maintain some of the imaginative capacities of the child.

Chapter 7: Conclusion

Technological society, based upon the mechanistic view of the world, sees the value of the person largely in terms of rationality. Such a view encourages prosthetic alteration of the human being. It has been our contention that this form of alteration is detrimental to individuals' capacities for ethical action, as differentiation between one's own will and the will of a technical system becomes problematic. The capacity for value-ception is hindered by an overly strict schema of concepts that promotes hostility rather than openness; individuals fail to bring their emotional experiences to their conceptualizations and decisions regarding action as the relation between perception and conception has been severed; they no longer exercise their creative conceptual capacities.

Conceiving of technology as art breaks the prosthetic bonds by validating experience and enabling the individual experience of value to guide action. Value deception is avoided as the imagination and the emotions are allowed back into our conceptions of the person and thus technology is not conceived as "best". Both Ivan Illich, in his notion of convivial tools, and Mike Cooley emphasize the importance of the human creative capacity.

The person is conceived not solely as rational, but also as emotional, imaginative, and creative. When conceived in this way, technology is conceived differently, and consequently affects persons in a different manner. Rather than conceiving of technology as that which works for us, we might see it as that which enables us to work well. This

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notion of technology has been present throughout our examination, and was embodied in the notion of tool. Prostheses replace, while tools assist and enable.

Illich's notion of "convivial tools" is consistent with the notion of tool we have been developing in contrast to prosthesis. Convivial tools "...allow the user to express his meaning in action,"[102] and are opposed to the prosthetic template for action. Tools are expressive; understood thus, we may see how technology can be understood as an artist's tool. Illich contends that the problematic relation between humans and technology has come from a mistaken notion of what technology is for. When technology is viewed as a replacement for human slaves "...machines enslave men."[103] This enslavement is in part due to the surrender of the human creative capacity, which rests on experience. To get beyond such a situation we need to have a society which does not promote the mechanical replacement of human creativity.

One of the social factors which contributes to the replacement of the human creative capacity, properly expressed in work and understood as meaningful activity, is the entrenched separation of production and consumption in technological society. This separation encourages the notion that work is done for the sake of consumption, and that this consumption is separate from the work being done:

> The idea that work, productive activity, signifies action carried on for merely extraneous ends, and the idea that happiness signifies surrender of mind to the thrills and excitations of the body are one and the same idea. The first notion marks the separation of receptivity from meaning. Both separations are inevitable as far as experience fails to be art: - when the regular, repetitious, and the novel, contingent in nature fail to sustain and inform each other in productive activity possessed of immanent and enjoyed meaning.[104]

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The result of this separation is decreased meaningfulness of work and leisure, a decline in experience, and a potential erosion of ethical capacities. "As the power of machines increases, the role of persons more and more decreases to that of mere consumers."[105]

Hegel's lord and bondsman relation is useful for thinking through this situation. It is the bondsman, through work, "...desire held in check, fleetingness staved off....," that "...acquires an element of permanence."[106] The bondsman "[i]n shaping the thing creatively, ... becomes aware of his own boundless originality."[107] In placing work into the hands of another agency, the machine, humans, like the lord, lose their self-consciousness, and become dependent on the machine.[108] The lord's position has been misperceived as best. It is this movement which Illich thinks is the root of our "...accelerated crisis."[109] He claims that its resolution lies in the recognition of a twofold experiment which has failed:

> For a hundred years we have tried to make machines work for men and to school men for life in their service. Now it turns out that machines do not "work" and that people cannot be schooled for a life at the service of machines. The hypothesis on which the experiment was built must now be discarded. The hypothesis was that machines can replace slaves. The evidence shows that, used for this purpose, machines enslave men. Neither a dictatorial proletariat nor an expanding leisure mass can escape the dominion of constantly expanding industrial tools.[110]

Illich thinks that society requires an inversion of the structure of our technologies, and this inversion implies both a re-conceptualization of technology and a new distribution of technology, including technique. Rather than allowing only a small group of people to control the technologies and techniques of society (experts and specialists) the distribution and use of technologies would be determined by political involvement. A convivial society would limit those tools that would unduly sacrifice the capacity of that

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society to function in a convivial manner. This is in stark contrast to our current society which is unable to limit technologies because technological progress has been conceptualized as human development. Any limitation of technology, according to this logic, would be a regression of humanity.

Illich's convivial society is the opposite of technological society, which rests on notions of industrial productivity, inhibits personal experience and is, consequently, detrimental to creativity:

> People feel joy, as opposed to mere pleasure, to the extent that their activities are creative; while growth of tools beyond a certain point increases regimentation, dependence, exploitation, and impotence.[111]

Illich's stress on the importance of creative activity to experience is in line with the notion that the imaginative capacity of human beings is deeply connected with their capacity to develop their personhood. Through creatively conceptualizing our emotional experience we are able to translate these conceptions into creative activity. "Convivial tools are those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of his or her vision."[112]

Cooley gives a detailed analysis of the problems posed by technology to the human being through the alteration of work. He claims that the computer has become a substitute for the human creative capacity in the field of design, and has turned work into mere routine, divorcing it from the human decision making process, and disabling the possibility for bringing into existence the vision of the individual.[113] In Cooley's thought we see a reiteration of the connection between creativity and work, and the importance of

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work to persons:

> ...work is very important to people. Not the grotesque alienated work which has developed over the last 50 years, but work in its historic sense which links hand and brain and which is creative and fulfilling...We express ourselves through our work. We relate to society through our work and we are creative through our work.[114]

Cooley is highly critical of society's depreciatory view of the human and its inflated view of the machine. He considers this view as connected with a desire to diminish human intelligence because intelligence "...brings with it culture, political consciousness, ideology and other aspirations. In our society these are regarded as somewhat subversive, a very good reason then to try to suppress it or eliminate it all together..."[115] Human intelligence, in so far as it is creative, *is* subversive, as it makes us able to see the human as artist, or art maker. Art is a form of protest in so far as it is understood as the "...process of making the world a different place to live in."[116] When society is technological in form it inhibits critical possibility and detaches the individual from their power to create and transform the world. The result is a diminishment of the person, an enlargement of the machine, and the disconnection of persons from their needs. "...[P]ersons need the freedom to make the things among which they can live, to give shape to them according to their own tastes, and to put them to use in caring for and about others."[117] A society which provides for this need emphasizes interdependence and frees the human from their prosthetic domestication in the form of servitude to a technical system

Cooley understands creative persons as those people who have an "open-ended childlike curiosity," are highly motivated, have a "sense of excitement" in their work, and

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possess the "ability to bring an original approach to problems."[118] Society. then. can be

understood as good to the extent which it enables people to develop into creative persons.

and in technological society we see several inhibitors to this process. many of which can

be understood in terms of the prosthetic alteration of humans.

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