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TECHNOLOGY AND MANAGEMENT

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SUMMARY

We intend to consider on the implicit technology values incorporated into the organizations; taking Feenberg, A. in *Alternate Modernity. The Technical Turn in Philosophy and Social Theory*, where he presents the democratization of his technocratic thesis starting off from three matters: the distortion of the organizational consent formation process by "delegating" the understanding to normalize the devices. The role of articulating the action in that process. And the role of the operational autonomy in the accumulation of technocratic power. To democratize the technical change requires: the possibility to democratize the technological control; the legitimacy of involving the informal public matter; and the public intervention with rationality and the work autonomy of the technical professional. It is necessary to consider about the objections that are made to the theory: the management chooses and decides last; it is not trivial, there is an operator, an object (technical system or input) and a especially technical power that arises in the roles that are carried out by human beings. We try to explain how the technical elections presuppose election norms and they have normative consequences, how they work within the groups, and how the repetitive processes of the group can take qualities of own expansion.

KEYWORDS: technology, to democratize, values, to delegate, consensus, and autonomy.

INTRODUCTION

In this work we present some concepts around the new democratic theory of technical change that Andrew Feenberg¹ discusses in his 1995 book *Alternate Modernity. The technical turn in Philosophy and Social Theory*, especially in Chapter 4: *The Technocracy Thesis Revisited*. The purpose is to generate in the administrators the conscience of the necessity of considering and debating on the impact generated by technical change.

In Feenberg's text, different authors discuss if technology is or is not value neuter; if the organizations, by using technology, are value generators and if the implicit values in technology are the product of society that exercises control on the organizations by means of technology.

Technology according to the dictionary comes from the Greek *techne*: art and *logos*: treaty. It means the exclusive knowledge of a mechanical occupation or industrial art. Its objective is to apply the contributions of science to improve qualitative and quantitatively the industrial, agricultural and cattle production.

In this work we will consider technology as the technical system that is used in the organizations (computers, software, tools, machines, inputs), to the necessary knowledge to make use of that technical system and to the knowledge generated by the use of that technical system.

TECHNOLOGY AND SOCIETY

¹ Feenberg, Andrew, doctor in Literature at the Friburg University, Germany. He is a researcher in technology philosophy, at the Communication School at Simon Fraser University, Canada. He taught in the philosophy department at San Diego State University, at the Sorbonne, in Paris and at the Tokyo University, among others.

In 1991 A. Feenberg publishes *Critical Theory of Technology*, where he outlines the technocratic thesis. The three main points are: **1** - the technological design is relative to the social matter, in opposition to the theories that sustain technological neutrality. **2** - The different access to the technical change contributes to social injustice. **3** - What cause the difference are some instances in which what is public is involved in the design of the technical systems. These three points will be the base of the democratic theory of technical change developed in 1995, in his book *Alternate Modernity, The technical turn in Philosophy and Social Theory*. Feenberg, the author himself, outlines that if any of those three points is false the democratic theory of technical change would not make sense.

In the first place technology is the product of a society with certain beliefs and values and in turn it contributes to preserve these beliefs and values through the technical system, in which they are incorporated. For example the values which come incorporated in the technical systems used and in the knowledge acquired, to make use of these systems. The values are incorporated into the design itself of the technical system which later will condition the use of these same ones in the organizations. The technical election is uncertain. The final election between alternatives depends on the adjustment between interests and beliefs of different influence groups which intervene in the design process. Feenberg uses the term "technical code" to refer to the hegemony values and beliefs included in the technologies.

Secondly the author sustains that the different access possibilities to technology in society, contribute to social injustice. And thirdly what is causing that difference is that in some sense what is public is involved in the technical system design. The author agrees that if this is true it is necessary to keep it in mind because it would be a new way of regulating our way of life.

The author outlines the points about which we have to consider: **1.** - the management chooses and ultimately decides; it is not trivial, there is an operator, an object (technical system) and an especially technical power that arises in the roles carried out by human beings. **2.** - Democracy has to give opportunities for human development capacities and of powers to all

equally. **3.** - To know if the ample participation has unacceptable costs that can diminish society's efficiency.

Simultaneously Feenberg sustains that technology opens new possibilities to different worlds and they can be transformed to serve to a technical change that includes as much the public as the private matter; the actors' role in the organizations has to be analyzed and the actions have to include the tensions and political unions jointly with the actions which determine the technical elections.

We will try to explain how the technical elections presuppose election norms and they have normative consequences, how they work within the groups, and how the groups in their interaction can generate their own expansion qualities. E.g. greater or less power.

Feenberg reformulates the technocracy idea in social terms, he shows how what remains of the technical control becomes the social fight's hegemonic power. He coincides with Habermas in that modern societies are dominated more and more by organizations legitimated by technical effectiveness. This does not mean that "technical rationality" is separated from the social one. On the contrary, it is the way in which the specific social groups win social control through their leadership in technical organizations. The problem is to reconstruct the dialogue within a social theory, instead of substituting one for another. That is to say a theory that includes the values that are generated in society through technology as much as those that are generated in the organizations.

Feenberg remits to Habermas² to treat the public intervention rationality problem. Habermas defines modernity in terms of spheres: the *cognitive* that refers to facts; the *regulatory scheme* to values and the *expressive* to feelings.

Modern society institutionalizes the differences in these three spheres. It distinguishes the types of rationality processes which supports: on one hand, the progressive development of knowledge and technology, on the other one, political and personal freedom. This differentiation seemingly is threatened by public intervention in technology. The political opinions and the

² Habermas, J. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society* (1989)

located knowledge are not differentiated and systematized as the specialized scientific-technical knowledge and thus values and facts are mixed.

In his first works Habermas introduced the notion of *public sphere* as an informal democracy institutionalization. Although these notions are different, they constitute mutually dependent aspects in democratic political life. The extension of this duality to technology promises an enrichment of public life that Habermas calls society's communicative rationality. Emphasizing the importance of consent in the legitimating process.

Habermas rejects Feenberg's technocratic thesis, he accepts neutrality in the technical sphere and abandons the hope of an economy and state transformation. He makes an effort to maintain the limits among spheres, not only from the conceptual but also from the practice

Feenberg considers that Habermas' theory seems like a promise, an obvious road to be taken. But the word *technology*, in his communicative action theory does not appear; a reason for it to be resisted. The same one is also limited only to give relevance to the mediation only where the communicative action takes place, for example in policies. Habermas does not find the way of differentiating communication and technical control, which assures the independence of the first (communications) and guarantees the dominant social theory.

On the other hand Honneth³ sustains that society's rationalization is an effect of the expansion and the organizational control and sustains that the social theory should explain the institutional interweaving of both in real and complex situations. The apparent rational purpose of the organizations is codetermined by points of view of moral practices that should be conceived as a result of the communicative action that Habermas outlines.

In modern societies the control on technique and society go together. The control cannot be identified beyond a legitimated normative authority. The revised technocratic thesis should explain; how power is legitimated without the trust in extrinsic ideologies to the technical sphere? Where in the organizations is the essential understanding and the social control made valid?; How does the normative consent arise?, not only of the social tensions that Honneth

³ Honneth, Axel. Graduated from the School of Psychology and from the California University, San Francisco, Faculty of Philosophy. Director of the Frankfurt Social Research Institute.

discusses, but also of the technical roles and tasks of the groups that coexist in modern organizations How can the mechanisms be normatively obligatory and technically effective?

A democratic thesis of technical change would have to keep in mind the interests of those who will operate with those technical systems that are not taken into account and also to consider if that is effective and efficient or not, for the organizations.

On the other hand Bruno Latour⁴ considers that the norms are delegated in the technical systems to achieve different obligations, which is the evidence that the technical systems corporize the normative consensus? It is supposed that the world has to be in a determined way, it is not mere strategy, and it participates in the communicative process for which social consent is formed.

Latour gives the example of how private property is delegated on the mechanical door (that opens and closes by itself). The example seems trivial but it is serious, as it is where the definition of the roles and social values are rooted. Behavior is imposed on the humans by non human prescriptions delegated on the technical system. The prescription is the mechanism's moral dimension and ethics. In this way force and ethics were delegated.

DELEGATION AND CONSENT

Technocracy is when the normative conditions are delegated in the technical system. The revision of the technocratic thesis substitutes the coordination for human communication tending to understanding⁵ proposed by Habermas. But when human beings are considered as such, according to that theory, the technical system needs of normative conditions that can be partially delegated to the technical system.

The technocratic thesis agrees with Habermas in that communication tending to understanding improves efficiency. However the design of the technical system, either a manual

⁴ LATOUR, Bruno, Philosopher and Anthropologist, Professor of Psychology at the Sociology and Innovation Center, Paris Superior National School of Mines, France.

⁵ Every understanding act can be considered as part of a cooperative interpretation process which has as objective, the obtaining of definitions of the situation which can be inter-subjectively recognized.

of procedures or software, is not neuter. The delegation regulatory conditions favor hegemonic interests. Delegation is the non examined cultural base. This is what Feenberg calls society's "technical code". This "technical code" diminishes participation and administration. Then one needs communicative rationality, but Habermas' is limited when automation substitutes the workers' capacities and when centralization and control restructure the organizations.

In the organizations, the interior life of the groups, so much in the action (the experts, the operatives), like in the consensus formation; should be studied as an hermeneutic⁶ process in which the articulation of situations, the interests and spontaneous action have established orientations sharing beliefs and projects. It is an attractive program, because according to Honneth today the groups appear "fragile". He considers that fragility is within the mechanism of group formation, in the interpretation of understanding. As Feenberg shows, there are roads to limit this mechanism and to achieve a more realistic consideration.

The formation of social class depends on the articulation of the implicit content of the collective action in the common understanding. The group identification contains generalization from the daily action, in particular in local situations, to a wider social conception that implies a class wider including solidarities and actions. This is a special type of procedure of reflexive knowledge that differs from theoretical reflection. This thought is imbricate in the action and the action is metonymically seized as displacing a long construction of social determination.

As discussed before, delegations are normatively rich, they define what should be when establishing action tasks, for which organization members are subjected due to their ownership. Thus, once the technical system has been installed successfully, the prescriptions that it sustains can be raised to the internalization as the concrete content of the normative consent that underlies the organization.

The "technical code" that forms part of the design of the technical system is the bias of a tacit organizational consent awaiting articulation. Doing this explicit consent in a technocratic, consciously stabilized group, it is that group which gives to the company the bases to coordinate the action. When the problems and the conflicts arise, the administration often

⁶ Hermeneutics f. art of interpreting texts, specially the Holy ones. Adj. (Greek hermeneuo. Interpret. Belonging or related to hermeneutics.

usually confuses them with the technical requirements of the work process. This is an effective strategy to align the subordinates in a consent related to behavior and objectives.

To apply the new democratic theory of technical change, and to become conscious and to think on the technocratic problem, one requires two significant ruptures: the kind of actors should be re-conceptualized in terms of their roles in their interior life in such modern organizations of social rationality, as State companies and organisms. The actions reflected in becoming conscientious should not only include tensions and political unions but also actions determined by the technical elections.

Taking into account the suppositions that arise as consequence of adapting the new democratic theory to articulate the self-understanding of the group action; we can show the technique normative role, by revising the terms of the delegation theory, and consider it in the organizational consensus.

INDETERMINATION AND OPERATIONAL AUTONOMY

These considerations take us toward the reformulation of the technocratic thesis in the social matter, by means of an explanation about the accumulation of technocratic power as a self-expansion of the rationalization process.

For Feenberg technological power is a contingency, but however it shows a tendency of unidirectional development. He makes another interpretation of Marxism and sustains that in the *“ELCapital”* there are several passages in which Marx argues that the election among alternative technologies is done within what is socially beyond the technical field. The capitalist not only wanted capital accumulation but also the control of the enterprise; their technical decisions reinforced their power and meanwhile their abilities to make similar decisions in the future.

The comparable technical alternatives have different effects on the distribution of power within the organization. We are not surprised to discover that to choose among them often results in intense fights. The environment of organizational control is mediated by technological elections, and sometimes resisted from below. Considering that we are in a technocratic society, it is a duty, the formation of a technocratic consensus through the defeat of these resistances.

Feenberg uses the term "operational autonomy" to describe the accumulation of power through the repeated selection among viable technical alternatives in view of the maximization of technical initiative. The preservation and extension of the operational autonomy lies in the heart of capitalism's technical codes. Any society in which technical development is governed by this code will exhibit capitalism's negligence of its property or political agreements system.

CONCLUSION

We coincide with Feenberg that to have to new democratic theory of technical changes we have to start off from his technocratic thesis where he outlined three matters: **1** - technological design is relative to social matter in opposition to the theories that sustain technological neutrality. **2** – The different access to technical change contributes to social injustice. **3** – What cause the difference are some instances in which what is public is involved in the design of the technical system.

In our opinion the administrators, who use the different technologies in the organizations, we who teach administration and all those people which in one way or another are linked to technology, should become conscious of the necessity to consider and to debate on the three questions that Feenberg discusses for a new democratic theory of technical change: **1.** - to explain how the technical elections presuppose election norms and they have normative consequences, that is to say, the distortion of the formation process of organizational consent "of delegating" understanding to normalize the technical system. **2.** - how those norms work within the groups, articulating the action in that process. **3.** - how the groups in their interaction can generate self-expansion qualities, which they call "operational autonomy" in the accumulation of technological power.

We agree with Feenberg in developing a theory that keeps technology in mind, as much in the social matter as the organizational one; we coincide in keeping in mind Habermas' theory on communicative action to reach to the understanding in the debate of the technical norms in the new public-technique sphere. And we share with Feenberg his disagreement with Habermas in accepting the neutrality within the technical sphere.

We consider the necessity of a democratic theory on the technical change where they are involved, in a local debate, the three matters that Feenberg outlines. The first one is that technocracy results in the systematic selection, in wide terms, of the technical alternatives that favour hierarchical control. The technical systems can be bought and introduced in time and in

strategic place; they can only be used to transform the normative structure of the organization through the technical delegation that corporizes a new normative consent in the seemingly unstoppable technical advances.

The technocratic thesis can be reformulated as the wider and wider use of technical delegation to consolidate and to legitimate a hierarchical control expansion system. Due to the way in which organizations proliferate and grow, the new thesis of technical change wins possibilities to justify the projection in another place of the dialectical one.

The second question is that at the moment the groups appear fragile in the organizations, they need to apply the reflexive theory of becoming conscious of the technocratic problem. In the new theory one must re-conceptualize the kind of actors required in terms of their roles in modern organizations. And the actions have to include simultaneously the tensions and political unions as the actions determined by the technical elections.

The third matter is that operational autonomy is the result of practices that can be resolved by means of the appearance of new groups and changes. The delegation can be problematized by a variety of tensions in the organizational work.

Technologies open possibilities to different worlds and they can be transformed to serve. The democratization of the technical change reflects potentialities contained in technology nature itself. It is not a utopia to unite the process of technical design to aesthetic, ethical norms and the national identities through new and more democratic procedures.

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