A Critical History of the Origins of Critical Systems Thinking

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by

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Abstract

This thesis provides a critical history of the origins of Critical Systems Thinking (CST). Its theoretical framework is based upon a detailed analysis of the work of the French philosopher Michel Foucault. It is aimed at demystifying CST's claims of pursuing some "neutral" human interests, while arguing that CST's origins are grounded on managerial interests and practices. After providing a comprehensive review of Foucault's ideas, it examines the main approaches found in the history of the management sciences. It shows how each new management approach made its contribution by producing a new type of worker according to changing historical circumstances; a worker that is increasingly supposed to freely and democratically pursue his/her own interests, which "coincidentally" follow those of the management. It also discusses how different strands of systems thinking, such as OR and soft systems, were produced to support these managerial paradigms. Finally, it examines the role that current managerial techniques, as exemplified by TQM, have played in the production of CST in the 1980s. In this context, it argues that CST's role in modern organisations is to contribute to the refinement of current managerial techniques. CST's discourse is portrayed, thus, as contributing to the masking of the micro-techniques of normalisation present in contemporary organisations.

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This is probably one of the hardest pages to write. There are so many people in Colombia, in the UK, and in other countries who have contributed to the completion of this work, that it would be impossible to try to name them all. I would just like to say that I will be eternally grateful to all those who, during the last few years, have shaped what I am today. Whatever this might be.

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To my parents José Leonardo and Helda, and my partner Colin Cairns. They are the first and most recent loves of my life.

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Obviously, a properly conducted genealogical study could contribute significantly to the social awareness of Foucault's writings for critical systems thinking.
(Jackson)

All my books... are, if you like, little toolboxes. If people want to open them, to use a particular sentence, a particular idea, a particular analysis like a screwdriver or a spanner to short circuit, to discredit, to break systems of power, including perhaps even those that my books issue from...well, so much for the better!
(Foucault)

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Chapter 1: Introduction.

Critical Systems Thinking (CST) emerged in the late 1980s from the criticisms raised against hard and soft systems thinking.[1] It is defined by three commitments: complementarism, emancipation and critical reflection.[2] Philosophically, it could be said that although CST was inspired by the work of Habermas (1972) on "human interests", it has also been influenced by the work of other philosophers such as Marx and Foucault.[3]

It is important to highlight that most of the publications concerning CST concentrate almost exclusively on the work of Jürgen Habermas[4] rather than on that of Foucault.[5] There may be many possible reasons for the dominance of Habermasian thinking. One is Habermas's well-established reputation as part of the Frankfurt School's efforts to challenge traditional concepts of science and social theory, as initially proposed by Horkheimer

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[1] Jackson 1991a, Flood and Jackson 1991a.

[2] These commitments will be discussed in Chapter 6. See, for instance, Flood and Jackson 1991a, Schecter 1991.

[3] See Flood (1990), Oliga (1990), Thomas and Lockett. (1979).

[4] For instance, Flood and Jackson (1991a), Gregory (1991), Jackson (1991a), Midgley (1989, 1990), Oliga (1990), Schecter (1991).

[5] Although one might find passing references to Foucault's work in many papers on CST, only Flood (1990) has considered Foucault in some depth. However, he has tended to focus on Foucault's earlier work; as far as I am aware, his later work has not yet been assessed by Critical Systems thinkers at all.

(1972) and Adorno (1979). Another is that Habermas's ideas have been deeply explored by other systems thinkers before.[6] We must also bear in mind that Foucault's philosophy does not provide a normative framework within which social action can be guided and evaluated. A further reason is the complexity found in Foucault's writings, which has been described as similar to Escher's paradoxical style of drawing.[7] Finally, Foucault's refusal of the notion of "improvement", at least in universal terms, could not appeal to the systems community which is to a large extent confronted in its daily work with issues related to the "improvement" of the effectiveness of organisations, from the hard and soft systems perspectives.[8]

Even though one can often find Habermas's ideas referred to in many publications on CST, it seems to me that the relationship between the two has been formulated in terms of what systems researchers find "useful" from Habermasian thinking: that is to say, as an answer to the following question,

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[6] See, for instance, Ulrich (1983), Mingers (1980), and Checkland (1981) - who describes his Soft Systems Methodology as "a formal means of achieving the communicative competence in unrestrictive discussion which Habermas seeks." (p. 20).

[7] Foucault has become since the publication of his first book in the early 1960s "a kind of impossible object: a nonhistorical historian, an anti-humanist human scientist, and a counter-structuralist structuralist. If we add to his terse, impacted style, which manages to seem imperious and doubt-ridden at the same time, and a method which supports sweeping summary with eccentric detail, the resemblance of his work to an Escher drawing – stairs rising to platforms lower than themselves, doors leading outside that bring you back inside - is complete" (C. Geertz, quoted in Dreyfus and Rabinow, 1982, p. xiv).

[8] Although some systems researchers have tried to distance themselves from these values. See, for instance, Rosenhead J., and Thunhurst C. (1882), Thomas A., and Lockett, M. (1979).

What can Habermas offer to Critical Systems Thinking? - The same can be asked of the relationship between Foucault and CST.[9]

In contrast to this approach, I shall not take the position of exploring what Foucault's work can offer to support and/or improve CST. Instead, I shall step outside CST and ask the opposite question, What can we learn about the origins of CST by regarding it from within a Foucauldian framework? This new approach has certain major advantages according to the archaeological and the genealogical dimensions of Foucault's work.[10]

In general, the archaeological dimension was presented in Foucault's early writings such as *Madness and Civilisation, Birth of the Clinic and The Archaeology of Knowledge.*[11] Later on, in writings such as *Discipline and Punish* and *The History of Sexuality*, and due to some theoretical problems

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[9] Flood (1990) argues that CST must include the liberating of suppressed knowledges in systems thinking. To this end he combines Habermas's and Foucault's writings. Although I share Couzens-Hoy's (1994) view that Habermas and Foucault could be perceived as responding to some of the challenges raised by contemporary thinkers such as Horkheimer and Adorno - early founders of the Frankfurt School - I shall avoid trying to combine Habermas's and Foucault's ideas. I have decided to concentrate on Foucault's work, and use any references to Habermas's only as a means of highlighting some issues in Foucault's work that I find relevant for this thesis.

[10] These aspects of Foucault's work will be discussed in Chapter 3.

[11] Foucault "proposes to treat the discourses of the human sciences archaeologically, that is, to avoid becoming involved in arguments about whether what they say is true, or even whether their statements make sense. Rather he proposes to treat all that is said in the human sciences as a "discourse-object". Foucault makes it clear that his archaeological method, since it must remain neutral as to the truth and meaning of the discursive systems it studies, is not another theory about the relation of words and things". (Dreyfus and Rabinow, 1982, p. xx).

found in his method,[12] he developed the genealogical dimension which focuses on the role of power relations in contemporary society. In this sense, genealogy becomes the dominant dimension of his method of historical analysis while archaeology, as a technique, serves it.[13]

On the one hand, the archaeological dimension will give us the freedom to look at CST without the constraints of having to build a historical account to support what we currently know of it. Also, it will help us to avoid the opposite, that is to say, to build a historical account to show why other explanations of the origins of CST given are flawed or misleading.[14]

This distinction is very important because, as I shall discuss in the following chapters, research based on "what a philosopher can offer to CST" could lead the researcher into mental traps. One of these could be that assuming CST as it is presented, a researcher may be tempted to avoid taking into

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[12] For a very detailed discussion see Dreyfus and Rabinow (1982), Chapter 4: "The Methodological Failure of Archaeology".

[13] "After the *Archaeology* he turns sharply away from the attempt to develop a theory of discourse, and uses Nietzsche's genealogy as a starting point for developing a method that would allow him to thematize the relationship between truth, theory, and values and the social institutions and practices in which they emerge. This leads him to pay increasing attention to power and the body in their relation to the human sciences. The archaeological method is not rejected, however... As a technique, archaeology serves genealogy... This, in turn, enables Foucault to raise the genealogical questions: How are these discourses used? What role do they play in society?" (Dreyfus and Rabinow, 1982, p. xxi).

[14] "Foucault is interested in what we will call *serious* speech acts; what experts say when they are talking as experts" (Dreyfus and Rabinow, 1982, p. xx). Regarding the origins of CST, I shall assume as *serious* speech acts the writings published by Flood and Jackson.

account the whole context in which the new concepts have been developed. Such a step would result in the research outcome's appearing more to be a careful selection of the ideas that fit most comfortably within the existing CST framework. As a consequence little, if anything, would be gained from this way of conducting research. Furthermore, one may be tempted to fill the gaps (or to solve theoretical inconsistencies) in CST's theoretical platform with ideas that, taking into account their context, may bear little or no resemblance to CST's objectives.

On the other hand, within the genealogical dimension, as will be illustrated on Chapter 3, Foucault's critical project is intended to shed light upon the historical circumstances that have made possible and meaningful our present ones, over other possible alternatives. This is a process that is rooted in power relations and chance rather than in any sort of historical determinism. It looks for the assumptions, possibilities and boundaries of our present that may be taken for granted. It is not intended to produce a history consisting of a succession of ideas with some sort of internal teleology.

In sum, to reflect about the origins of CST, within a Foucauldian framework, requires us to take some distance from the object of study. This distancing will allow us to locate the different aspects that constitute the body of knowledge and practice called CST (archaeology), in order to determine the context within which this knowledge and these practices, and the particular way in which they are assembled, make sense (genealogy).

Further to my academic interest lies the fact that, being a gay man, I am not new to this exciting, difficult, and in many circumstances painful task of challenging the boundaries of what we are told is natural and acceptable: the task is of trying to make sense of one's life within a framework that is continuously changing as a product of contingent and discontinuous experiences.

As in my theoretical explorations, I truly believe that one's existence is enriched through an individual's being able to examine the existing assumptions that make possible and give meaning to one's life. This is not an exercise intended merely to reinforce an idiosyncratic way of looking at the world and at oneself, nor to compare different possibilities in order to decide which is better. It is a way of life, of continuous self-creation, in which one tries to explore how one has become whatever one is and also the possibilities of going beyond that.

I wish simply to highlight the connection between myself, the way I look at the world, my research interests, and the theoretical frameworks I have chosen within which to explore those interests.

This thesis is intended, in consequence, not only as a theoretical discussion, but rather as a challenge to transform my understanding of CST and my

personal relationship with its theory and practice, and ultimately to transform myself. As Foucault perceptively says:

> If I had to write a book in order to communicate what I already think, before starting to write it, I would never have the courage to undertake it. I only write because I do not know yet exactly what to think of this thing that I would like so much to think through. Thus, the book transforms me and transforms what I think. I write in order to change myself, and not to think the same thing as before. (Quoted in Mottier, 1995, p. 27)

1.1 Methodological Preamble.

Every piece of research work is grounded on a set of theoretical assumptions according to the researcher's theoretical framework, and it also involves the making of a series of choices as the research process is carried out. Some of the issues that one must face, and the choices that need to be made, are related to the following general aspects of the research process:

- The selection of a particular topic of study
- The selection of a general framework of reference and the parameters that will contain it
- The adaptation of this theoretical framework to the particular object of study
- The selection of primary and secondary literature to support particular aspects of the research

- The making of certain theoretical and practical decisions in order to choose from the different, alternative, paths found during the research process
- A community that the research aims to address, and that somehow could be transformed by, the research output.[15]

The making of this list does not mean that there could not be other equally important issues involved in any research process, nor that these are encountered in a predefined order, nor that they are encountered only once during the whole process. Personally, I have found myself in a continuous process of inquiry through which I have tried to harmonise many theoretical aspects with some practical decisions that needed to be made for this research to be successful and meaningful. As a consequence, I believe that it is necessary to provide a methodological preamble to illustrate and "open up" the research process that lies behind, and gives support to, the following chapters. This preamble will also pave the way for the reader to appreciate some of the strengths and limitations of this research, as well as new paths for further research.

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[15] Although I acknowledge that any piece of research could eventually transform its readers, following Foucault's ideas, the present research does not purposely intend to transform them in one way or another. Furthermore, the impact of the present work in the CST community, whatever shape it might take, could be the subject of further critical analysis.

One major aspect that needs to be considered at this point is the way Foucault's work has been understood and adapted. Although a general account of his work is given in the following chapters, there are some methodological considerations that need to be explained here. The main issue that will be discussed in the following pages is how Foucault's critical project - "the critical ontology of the present" - was adapted for the analysis of the work of a very small group of researchers, and how the work of these researchers can be linked to broader macro-social phenomena. Towards this end, I shall start by relating the way in which I became aware of Foucault's work.

1.1.1 Foucault's arrival "on the scene".

Let me explain how Foucault was considered amongst other philosophers such as those affiliated to the Frankfurt School, as constituting the general framework for this research. The original drive did not come from Foucault's work itself; instead, it came from three different secondary sources: first, Flood's (1990) account of Foucault's earlier work, which was influential in the shaping of CST. Second, Dávila's (1993) article, published when CST was already established, somehow illustrates Foucault's later work.[16] Finally, a

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[16] I found this article somewhat confusing due to the fact that Dávila tried to summarise Foucault's work in a few pages. When I had the chance to work with him, first in Venezuela, and then in Hull (while he was a Visiting Professor at the M. Foucault Institute in Paris), he also told me that some of the problems found in his article were due to his lack of command of the English Language. Dávila is very knowledgeable of Foucault's work since he attended Foucault's lectures while studying sociology in Paris. I am grateful for his comments on the ideas that shaped Chapter 3.

brief comment made by Jackson (1991a) regarding the "usefulness" of a genealogical study for CST's social awareness, as quoted on the initial pages of this thesis.[17] These sources represent my original encounter with Foucault's ideas.

Even though those earlier references to Foucault provided some initial inspiration, it must be said that the first two differ in terms of Flood's interest in addressing the issues of power in an instrumental manner, i.e., trying to solve some deficiencies in Habermas's "ideal speech situation" model and leading towards some sort of practical application. Dávila's account, in contrast, did not intend to give any methodological guidance for CST.[18]

I have to say that at some point I studied to a certain extent Habermas's work because of its connections with CST. Amongst other books and articles, some of which I will refer to in Chapter 2, I focused on his theory of "human interests" (Habermas, 1972), the work published in the second volume of his *Theory of Communicative Action* (Habermas 1984), and some of his ideas regarding his theory of "social evolution" (Habermas 1979a, 1979b).

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[17] As he puts it: "Obviously, a properly conducted genealogical study could contribute significantly to the social awareness of Foucault's writings for critical systems thinking". (p. 205)

[18] Dávila repeatedly warned me against developing, as regards intervention, a methodology based on Foucault's ideas.

I found the first work very Utopian and lacking a comprehensive explanation of how power relations intervene in situations where debate is possible, even when this debate is well intentioned and open.[19] The second work showed me that his idea of emancipation, related to the interplay between the "life-world" and the "system", was quite different from CST's concept of emancipation, as expressed by Jackson (1991a) and Flood and Jackson (1991a).[20]

Afterwards, when I studied Foucault's work in depth, I found that CST's interest in using Habermas's and/or Foucault's ideas within the production of a methodology was alien to the research interests of both philosophers. In this context, even though I was tempted to dismiss CST on the grounds that it was based on a misreading of these philosophers, a set of new questions started to emerge instead: What are the historical conditions that made *that* particular reading of Habermas's and Foucault's ideas meaningful? Which interests were behind this particular reading? How is this reading linked to other bodies of knowledge and wider social phenomena? Why did CST emerge as it did and at that particular moment?

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[19] In this sense I share many of the criticisms expressed by Ulrich (1983), Romm (1996), amongst others.

[20] I will describe CST's concept of emancipation in Chapter 6.

These questions and others, that will be addressed later on,[21] explain how I started to become interested in the origins of CST and in the work of Flood and Jackson amongst the work that since then has been carried out by many other CST researchers. It also highlights some of the reasons why I selected that particular historical moment as the focus of my research. These issues are discussed later in this chapter.

In referring to the relationship between Habermas's and Foucault's work in my research, I should like to point out that even though I was aware that I could concentrate on Foucault's work without making reference to that of Habermas,[22] I thought it appropriate to make some passing comments on Habermas for three main reasons. First, I wanted indirectly to diffuse the argument of whether the respective work of Habermas and of Foucault could be approached in a complementary fashion, through pointing out certain fundamental differences.[23] That is why I have mentioned Habermas, to an extent, in the next chapter yet without providing a complete account of his

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[21] I do not claim that I shall provide answers to these and other similar questions in a definite manner, although they will certainly give a very particular flavour and direction to this research.

[22] As will be quoted later, Foucault explicitly stated that he did not become aware of the work conducted by the Frankfurt School until most of his intellectual production was well on its way.

[23] The difficulty in constructing the argument of whether or not Foucault and Habermas can be used in a complementary fashion, or even the debate between these two theoretical frameworks, can be illustrated by the fact that Habermas and Foucault could never agree upon the issues that could be discussed and contrasted in order for a face-to-face debate to be staged.

extremely important work.[24] Second, I wanted to illustrate some aspects of Foucault's work when contrasting his with Habermas's. Finally, because of a very fortunate encounter with the work of David Couzens-Hoy, and in particular, with his 1994 book, *Critical Theory,* in which he brilliantly links some of the issues raised by Horkheimer and Adorno – early founders of the Frankfurt School - and Foucault's work.[25]

Couzens-Hoy provided me with the necessary tools for understanding my early readings of Horkheimer and Adorno's work in a new light without having necessarily to link it with that of Habermas, as I had been doing up to that point.[26] He also allowed me to relate the work of Foucault to some pressing issues in contemporary society without having to enter into the debate between modernism and postmodernism - a debate that, as will be quoted, Foucault says he never fully understood.

I will look at Foucault's work as a whole, assuming his method of analysis as it is portrayed in his last books, especially those on sexuality. As a consequence, I will accentuate the genealogical dimension of his work and

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[24] A comprehensive account of Habermas's thought lies beyond the scope and interests of this research.

[25] Couzens-Hoy also edited one of the most interesting books on Foucault: *Foucault: A Critical Reader,* Basil Blackwell, Oxford, 1986.

[26] Wiggershaus's (1994) *The Frankfurt School*, Polity Press, Cambridge, constitutes the most comprehensive account of the development of the Frankfurt School, from Weil until Habermas, that I have found.

its emphasis on the conceptualisation of power relations. I have also used extensively the insights found in an article he wrote for Dreyfus and Rabinow's (1982) *Beyond Structuralism and Hermeneutics.*[27] Foucault's later writings gave me a very useful "map" to understand his earlier work,[28] and "put all his books together";[29] the latter clearly summarises his concept of power and links his ideas to Kant's notion of Enlightenment.[30]

Having reached this point in my research, I found myself facing the problem of how to adapt Foucault's ideas, related to the study of wider social phenomena in contemporary society, to the study of the work that directly led to the production of CST. This was going to prove a very interesting task, theoretically speaking.

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[27] To my knowledge Dreyfus and Rabinow's book is the only book whose drafts were read and commented on by Foucault himself. He especially wrote "The subject and power" to be published as the Afterword of this book.

[28] This map, or "three-dimensional" framework for the analysis of any historical experience, was graphically illustrated by Dávila (1993). See Figure 3.1.

[29] As is widely known, Foucault, knowing that he was infected with the HIV virus and that his health was falling rapidly, tried to provide a general "map" through which his whole work could be understood. Sadly, he did not complete his work on ethics – based on a historical analysis of Christianity - and he gave clear instructions for none of his work to be published after his death (see Miller (1993), and Ebrion (1989)).

[30] Foucault was very knowledgeable of Kant's work since, as Miller (1993) says, "In Foucault's day, a doctorate required the submission of two theses, one of publishable quality, the other – the *thèse complémentaire* - a smaller piece of work on a different topic, indicating the range of the candidate's scholarship. To meet the requirement, Foucault in 1960 had submitted to the Sorbonne jury, in addition to *Madness and Civilisation*, a translation of Kant's *Anthropology From a Pragmatic Point of View,* which Foucault had rendered into French for the first time, along with a commentary that, in typescript, is 128 pages long." (p. 137).

1.1.2 The adaptation of Foucault's work.

1.1.2.1 Foucault's critical project.

One of the main aspects of Foucault's work that interests me is the way he conceptualises the on-going processes of normalisation in contemporary society. As will be seen, *the present* and the possibilities of going *beyond it* are the central issues he wants to explore. This is in sharp contrast with those interested in the past, those with the attitude of the palaeontologist who patiently tries to unearth the remains of a dead species with a tiny brush. It is also different from those who entertain themselves with the more fictional task of designing possible futures from the study of the past, or with the forecasting of what the future might bring as a fortune-teller would do.

Foucault's work certainly entails a historical inquiry that is aimed at uncovering the conditions that have produced our present, which is the crystallisation of one of the many alternatives that were available.[31] The main difference between his and traditional historical accounts is that for Foucault the mechanisms that have operated in selecting amongst those alternatives and hence produced our present are rooted to a large extent in chance and

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[31] I do not argue that any historical moment has a set of clear-cut alternatives to choose from, but rather, that some possibilities are excluded in the process of production of any historical moment.

in power relations,[32] rather than in any sort of historical determinism or the notions of progress and improvement. This is to say, those concepts lose the privileged role given in traditional historical accounts. Furthermore, even the present, as will be illustrated, becomes something heterogeneous and defined only vaguely. In sum, those very concepts – progress, improvement, development, the present, etc. - instead of underpinning the historical account without being challenged, become the subject of a critical enquiry.

As a consequence, if we could summarise Foucault's interest in our present we should say that, within his theoretical framework, historical analyses are transformed from the study and understanding of the past as something that is fixed and determined, to a process of *endless demystification* of the past, and hence, also of the present. In the same fashion, if Foucault assumes that any historical explanation is rooted in the historical conditions within which it is produced, then his historical explanations must be understood as plausible and possible, rather than having any intrinsic superiority over other accounts.

To conduct the analysis of the present and the possibilities of going beyond its boundaries, Foucault focuses on particular aspects of human experience

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[32] Foucault conceptualises power relations as "a way in which certain actions modify others. Which is to say, of course, that something called Power, with or without a capital letter, which is assumed to exist universally in a concentrated or diffused form, does not exist." (Foucault, 1982, p. 219).

that at a certain moment are perceived as a problem.[33] In this sense, the creation of modern institutions such as the clinic, the school, or the prison constitutes only part of the answer that historical actors give to a particular problematisation.[34] See Figure 1.1.

However, if institutions are just part of the answer given at a particular moment to certain problematisation, it is then plausible to ask, What other than institutions is the object of Foucault's enquiries?

It is clear to me that Foucault's critical project is intended to demystify the present, through the study of the heterogeneous set of discourses and practices that have produced it. Some of these discourses and practices have been built up to define a particular domain of human experience as a problem and to determine its possible solutions. Amongst these "plausible solutions" we can find the creation of institutions. Others, although not so directly linked to concrete institutions and therefore less visible, play an

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[33] In relation to the problematisation of madness he says: "In *Historie de la folie* the question was how and why, at a given moment, madness was problematised through a certain institutional practice and a certain apparatus of knowledge." (Foucault, 1990, p. 257).

[34] At the first glance, one could be forgiven for thinking that Foucault's interest is the study of particular institutions such as the clinic and the prison; in the same fashion one could think that Foucault's general goal was the study of power relations in modern society. On this latter issue Foucault says,
"I would like to say, first of all, what has been the goal of my work during the last twenty years. It has not been to analyse the phenomena of power, nor to elaborate the foundations for such an analysis. My objective, instead, has been to create a history of the different modes by which, in our culture, human beings are made subjects. My work has dealt with three modes of objectivation which transform human beings into subjects" (Foucault 1982, p. 208).

equally important role in the production of the present. This heterogeneous set of practices and discourses that give meaning to our present constitutes what Foucault calls the *dispositif* – see Figure 1.1. When Foucault was asked by Grosrichard what he meant by the "dispositif of sexuality", he replied:

> What I am trying to pick up with this term is, firstly, a thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions – in short, the said and the unsaid. (Foucault, 1980, p. 194)

In sum, it is possible to see that Foucault's interest in institutions is a methodological device rather than an end in itself and, at the same time, that he studies institutions because within them some of the discourses and practices that constitute our present are made visible in the context of a certain problematisation – see Figure 1.1. Having exposed the central role of different problematisations in the study of the *dispositif*, it may be explained how they can be approached.

Foucault's method of historical analysis conceptualises a particular historical experience within a three-dimensional framework.[35] The axes that constitute this "space of experience" are bodies of knowledge, power relations, and forms of self-understanding. If he certainly gave at some point some

emphasis to one dimension over the others, this was just a methodological device that allowed him to conceptualise these dimensions, and to develop his general method of historical analysis. As a consequence, what Foucault was trying to understand is the role of certain problematisations in the shaping of our present.

The issues raised in these paragraphs are of paramount importance for this research. By highlighting the fact that Foucault studied institutions as a methodological device rather than as an end in themselves then I could argue for the study of CST as a body of knowledge in relation to certain practices and forms of self-understanding. Therefore, the case for the study of the origins of CST could be established when linked to wider forms of normalisation (in this case management sciences), within a general problematisation: the productive subject. As a consequence, I shall not consider CST as being completely detached from any modern institution. I shall assume as a background for this research that the modern working organisation represents the crystallisation of certain sets of power relations, bodies of knowledge, and forms of self-understanding. Amongst those, one can find the discourses and practices inspired by the management sciences. Therefore, the role of CST would be to reinforce and refine some of these discourses and practices. See Figure 1.2.

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[35] This three-dimensional framework is illustrated in Figure 3.1.

Finally, Foucault's choosing of certain problematisations over others can be related to his professional interests as a former psychologist, and his political interests, such as his involvement in the student protests of the 1960s. As a consequence, there is a certain arbitrariness in the choosing of these problematisations - while he was discovering what he calls "my humble path" -[36] rather than a form of logical necessity. His explanations are therefore partial, given that it would be impossible to understand our present totally, and are simply plausible, since there is no standpoint to claim that his accounts hold any intrinsic superiority over other historical narratives.

Having made these remarks, ones that will be fully expanded in following chapters, I can begin explaining how my research is linked to this general theoretical framework.

1.1.2.2 The relationship between the management sciences and the origins of Critical Systems Thinking.

First of all, starting from Foucault's notion of *dispositif,* as will be addressed fully in Chapter 3, it is necessary to clarify what kind of elements - from all the possible elements that constitute our present - I shall select in order to

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[36] In Raulet (1983), p. 200.

study CST. I shall focus on the relationship between CST and Management Sciences.[37] I find this distinction useful for several reasons.[38]

The first is because systems thinking has been epitomised as being opposed to the fragmented approach to the natural and social worlds that characterises traditional scientific management. Secondly, it is because CST has intended to take a critical position against contemporary management theories and practices.[39] Thirdly, and in sharp contrast, it is because CST has somehow tried to align itself with these managerial concerns through the production of methodologies, such as Total Systems Intervention (TSI), and the refinement of some widely used managerial techniques such as Total Quality Management (TQM).[40]

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[37] I assume as Management Sciences all those discourses and practices whose final objective is the improvement of the factory output, and therefore profit.

[38] It should be noted that I chose this relationship because of its "usefulness", following Foucault's approach, rather than because it has any sort of intrinsic superiority over other choices. Amongst other relationships worth exploring I would suggest, as topics for further research, the production of the system consultant in relation to the production of the management consultant, and the impact of CST on other branches of the systems movement.

[39] Curiously, the topic chosen by Ackoff (1992) for the lecture that marked the opening of Jackson and Flood's Centre for Systems Studies was Total Quality Management. In his talk, Ackoff claimed that the problems found when implementing TQM could have been avoided by incorporating systems ideas.

[40] The fact that Flood and Jackson have openly tried to refine those managerial techniques by using CST's ideas has been also an important factor in choosing their initial work as the focus of this research. See, for instance, Flood (1993), Flood and Jackson (1991b).

Finally, even though the connections between systems and managerial theory and practices are evident, I have not so far found any piece of research that highlights and openly explores this relationship. That is to say, systems thinking seems to have a history independent of that of Management. In this context, any reference to Management is used to highlight the validity and relevance of the systems methodologies, but it is not acknowledged as a source of inspiration. In the same fashion, the new themes that have emerged in systems thinking are presented as a history of unimpeded developing ideas: radical breakthroughs inspired by researchers - who, aware of the weaknesses in their theoretical frameworks, suddenly discover or develop these new concepts. No attempt is made at understanding why these themes emerged at the time they did, or the relationship between them and wider social arenas.

In this context, the weight of my argument will rest, then, on two assumptions. The first is that the relationship between CST and the management sciences is not accidental, although nor is it the product of any historical determinism. The second is that the themes which have inspired "changes" in systems thinking - and which produced CST - can be also found in Management theory, these being the result of managerial interests and practices, and not merely spontaneous creativity on the part of the researchers.

In the same context, I have decided to concentrate on a particular historical moment: the origins of CST; in other words, in the discourses that are most directly linked to its production. This decision could be controversial. For one, CST is not a dead body of knowledge, thus one can find papers being constantly published in what could be considered CST's official Journal, *Systems Practice*, as well as in many other professional journals.[41] Furthermore, following traditional historical accounts it would be tempting to bring into the discussion any of the many sources of inspiration of CST within the systems community,[42] or of its ongoing production at the Centre for Systems Studies[43] and The Centre for Systems Research.[44] Leaving aside the fact that this choice can be seen as arbitrary from some perspectives, I should like to stress its usefulness, since what I want to explore is an aspect something that has been taken for granted in much of the current production in CST: its original ideas. If one looks at most of the articles and books on the subject, these often quote Jackson, and Jackson and Flood's early writings extensively. Most of these articles either "build on those ideas", or

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[41] For instance, *Systems Research and Behavioral Sciences* and *The Journal of the Operational Research Society (JORS)*.

[42] Such as the on-going dialogue with those working in "Interpretive Systemology" in Venezuela, and with Ulrich's "Critical Systems Heuristics". I have had the chance of working with both, the researchers in Venezuela as well as with Ulrich, and they all have kindly asked me to exclude them from any historical analysis of CST by pointing out at the many theoretical and practical differences. The historical analysis of interpretive systemology, critical systems heuristics, and other schools in systems thinking would be the subject of a wider research programme than the present one, as will be explained.

[43] University of Hull, England, UK.

[44] Lincoln School of Management, University of Lincolnshire and Humberside, England, UK.

criticise certain aspects of those writings in order to solve certain problems found. It is also possible to find articles that, on the contrary, dismiss CST on grounds of its theoretical inconsistencies or its inability to act "according to what it preaches" when applied to solving particular managerial problems.[45]

Finally, since I am writing mainly for the CST community, I can expect some resistance to my approach from many different sources: those currently working on CST could reasonably argue that since I do not take into account the most recent and sophisticated works of its literature, my critical exploration is somehow unfair, incomplete, or even dated. Resistance could also be expected from the critics of CST who could expect that a critical analysis would help to "improve" CST, and finally, from the detractors of CST who could expect from a critical analysis a complete dismissal of CST when pointing out at some of its theoretical and practical problems. I am very sorry to state that I shall resist any attempt to embrace any of the interests of the above since, following Foucault's approach, I intend to write neither a manual containing an extensive catalogue and revision of the work published to date, nor to provide any indication of how an improved version of CST could be produced nor, equally, to dismiss out of hand the importance and possible impact of CST.

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[45] See, for instance, Tsoukas (1993a, 1993b).

There is, however, a most significant advantage in conducting this research within these specified parameters. I truly believe that it is now possible to take the necessary distance from the intellectual contents to attempt a critical history of the origins of CST. I also believe that a critical revision of those writings can help us understand, from a different perspective, how CST can be linked to wider arenas of knowledge and practice, and how its origins can be explained in terms of interests that lie beyond its "official" boundaries.

Up to this point, I have given a very general description of how Foucault first entered into the scope of this research. Next, a general view of his ideas, which will be properly expanded in subsequent chapters, has also been provided. After this, I have stated the historical moment upon which I would like to focus. Finally, it has been shown how I shall link CST's original production to wider bodies of knowledge, i.e., Management. In the following paragraphs I shall relate how a critical revision of the history management science will be conducted.

1.1.2.3 The critical history of the management sciences.

The importance of the management sciences to contemporary institutions, and therefore to current techniques of normalisation, is quite obvious from Foucault's perspective. As has been pointed out above, contemporary institutions, amongst which we find the modern working organisation, are just part of the answer given to recent problematisations in Western society.

As a consequence, if I want to examine the origins of CST, within a Foucauldian framework, and its connections with management sciences, it would be necessary, first, to provide a critical account of some themes found in the history of Western management science. Needless to say, a critical history of management sciences represents a research proposal on its own. It is also quite obvious that certain historical accounts of this body of knowledge and practice are not compatible with my research interests. Thus, we should focus on historical accounts framed within Foucault's ideas.

From the wide range of "histories of management" I found, some of which are currently used to teach management sciences at universities, I found two quite illuminating. The first one is Hollway's 1991, *Work Psychology and Organisational Behaviour.*[46] The other is Rose's, 1989, *Governing the Soul: The Reshaping of the Private Self.*[47] The main feature of these two historical analyses lies in the fact that they both openly acknowledge their

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[46] "By the time I came to research the history of industrial psychology for the Birkbeck course, I was knowledgeable about applying the historical perspective of Michel Foucault to the production of social science. Essentially this perspective does not accept the premiss that knowledge can be value free. It understands the production of knowledge by analysing the relations between knowledge, power and practice. I approach work psychology in the same way in his book." (p. 3).

[47] "In preparing this book I have drawn upon many sources and many people. Most notably, my own way of thinking about the questions that concern me has been shaped by the researches and analyses of Michel Foucault, whose memory deserves better than the industry of commentary that has thrived upon it." (p. xiii).

Foucauldian orientation. Having said this, certain issues raised by these authors need to be discussed.

Even though Hollway provides a most insightful account based upon the centrality of power relations, bodies of knowledge, and forms of self-understanding in Foucault's method of analysis, I strongly disagree with her when she states that Foucault does not provide "an adequate account of the production of subjectivity" (p.4). If this were indeed the case, then Foucault's method of analysis would be incomplete and, therefore, far from satisfactory. Also, as Rose (1992) points out, when reviewing Hollway's book, it is not clear why she devotes a whole final chapter to the "future of work psychology and organisational behaviour". From what I have said above, and as I will expand in subsequent chapters of this research, nothing could be more alien to Foucault's thought than any attempt to predict the future of any discipline. In my opinion, Hollway falls into the temptation of traditional historical accounts in completing a historical review by including a chapter aimed at suggesting expectations concerning the future of the discipline. Hollway's book thus slips into the category of fiction. Having said this, I am very grateful to the way she has produced a history of work psychology and organisational behaviour that is both lucid and coherent. I found there amply described many of the sources I had read regarding the different theories of management sciences. Whenever possible, I also traced all the references I found meaningful to my research to their original sources. These are not only accurate but also insightful, raising certain issues that I

had not previously considered in any depth. I must state that even though I have acknowledged Hollway's help in tracking down many of the references, some of them I had myself found while doing my own research. My deepest apologies for any omission I could have made in referring to her book. Finally, and no less important, is the fact that she focuses, to a large extent, on the history of management in the UK. This is a key factor that will be consistent with other parts of this research, as will be shown in later chapters.

Rose's work, more comprehensive in its scope, does not concentrate exclusively on the production of management sciences, but it aims to enquire into the production of modern subjectivity. The "productive subject" is thus just one of the dimensions of the modern subject that he wants to explore.

As a consequence, I could say that my research is somewhere in between these two authors as regards the critical history of the management sciences. I combine my own research with Hollway's history of work psychology as the background, complementing it with Rose's emphasis on the production of "the productive subject". In some ways it could be said, with a few reservations, that my account of the history of the management sciences is the outline of a new work, one that unites and complements the insights of both authors to the benefit of my own research. By explicitly making continuous references to Foucault's three-dimensional framework, as

it will be done in later chapters, it will be shown how Hollway's and Rose's work is not only inspired, but ultimately guided, by the philosopher's ideas, emphasising the coherence and continuity expected in this thesis. Finally, I have ended my critical history of the management sciences with a very brief review of some of the current managerial techniques.

As we all know, in the last ten years there has been an overwhelming increase in the production of those, such as TQM, Re-Engineering, Just-in-Time, Downsizing, and many others. I decided to briefly focus on TQM for three main reasons. Firstly, it is because of my personal involvement in the implementation of a TQM programme in a large manufacturing corporation, both as an engineer and as a personnel manager. Secondly, it is because I believe that TQM has made a very strong impact on modern organisations, even though its practical merits are very dubious.[48] Thirdly, it is because of the fact that Flood and Jackson (1991b), when developing their Total System Intervention (TSI), chose this technique as an example of the usefulness of CST. I do not believe that this choice was made randomly, yet it constitutes a very open attempt to align CST with current managerial techniques. As a

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[48] Regarding TQM's effectiveness Ackoff (1992) remarks: "A recent survey of 500 executives from manufacturing and service companies confirms that most US companies, 93%, have some form of quality improvement programme but many are finding they simply are not improving fast enough in relation to competition. Only about 1/3 of those executives polled, 36%, believe their company's efforts have had a significant impact on their competitive position. The impression one gets from the propaganda is that practically every TQM programme has been successful, but it turns out that two out of every three have failed to meet the expectations of the managers."

consequence, Flood and Jackson's work validates to some extent the two assumptions upon which the weight of my argument rests, as mentioned before: first, that the relationship between CST and management is not accidental, and second, that the themes that have inspired "changes" in systems thinking – and have produced CST - can be found in management thinking and practice, these being the result of managerial interests and practices. Those interests, beyond the official discourse of effectiveness and efficiency and therefore profit, are related to the production of docile individuals who freely and democratically choose corporate policies. This process of choosing corporate policies is made possible by the transformation of a worker's self-understanding though the interaction with power relations and managerial knowledge and practices, as will illustrated in later chapters.

1.1.2.4 The critical history of the Origins of Operational Research and Soft Systems Thinking.

Once I have selected some of the relationships that constitute our present, or *dispositif*, as crystallised in the modern working organisation, and display them in a Foucauldian framework,[49] it is necessary to establish a connection with systems thinking and practice. I decided to focus on the history of the origins of Operational Research (OR), and Soft Systems Thinking, both in

the UK. This choice is consistent with the previous analyses since I have focused, as does Hollway, on many aspects of the development of the management sciences in the UK.

Again, I could have chosen to study the different schools of systems thinking in the UK and overseas, particularly in the North American contributions. Doing so would have involved extending the review of the management sciences to those schools of thought that could be considered typically North American. This type of research is one that should be undertaken if the intention is to write a critical history of systems thinking "in general", rather than a critical history of the origins of CST.[50]

Finally, there is a very important aspect of OR, as it has been understood and practised mainly in the UK, which can be linked to Foucault's interest in wider social phenomena, and especially to the production of contemporary society. That is OR's interest in social planning rather than in business consultancy, as expressed by Ackoff (1957).[51] In this sense, it is possible to see the connections I am trying to establish between the production of

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[49] It is important to stress this thesis constitutes one possible historical account of the origins of CST within a Foucauldian framework. Other critical histories concerning the origins of CST could be produced when focusing on other issues.

[50] This type of research programme, immensely tempting and interesting, constitutes a subject for further research that I hope would appeal to new generations of PhD students. I can hardly see this being accomplished by a single individual, especially if this person is to start by first understanding Foucault's work, which has taken me almost half of the time and effort in this PhD.

contemporary society through OR's contribution to social planning, the work-place – both Foucauldian themes *par excellence* - and the techniques developed on the work-floor for the production of new subjects. In sum, it concerns how the production of new bodies of knowledge interact dialectically with the production of new subjects, and with the reshaping of power relations in the work place - and in society in general. The production of OR in the UK will provide the first point of direct contact between Management and systems thinking in the UK. The literature regarding the origins of OR is quite wide indeed. I had explored it to a large extent during my training as a Chemical Engineer, and later on, as Masters student at the University of Hull, where I took several courses on the subject given by Dr Paul Keys. There are many accounts regarding its development and the methodologies produced for its practical application, such as those by Keys (1991), Jackson (1991a), Flood and Jackson (1991b), and the many articles on the subject published in the *Journal of the Operational Research Society*, amongst others. Using this material I started to build a critical history of OR in Chapter 5, relating its production to wider social phenomena and to the development of the management sciences in particular.

The selection of certain articles in building my critical history of OR is not a "neutral" process indeed. I deliberately chose the material that pointed towards the development of OR and its social and political context, rather

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[51] See Page 205.

than focusing on lengthy explanations of the methodologies themselves. I also focused on the tensions within this emerging discipline in terms of its struggle for survival in modern organisations, and the debate between those advocating the social planning aspects of OR and those involved in business consultancy: that is to say, in the production of the operational researcher. This may come as a surprise to those who value the importance of OR in terms of the sophistication of its methodologies and their practical application.

After this critical review was carried out in Chapter 5, I moved towards the break that gave rise to the emergence of soft systems thinking. This break is not new, as it is also widely acknowledged in the systems literature. However, it has been portrayed in the official accounts as an improvement within the discipline that emerged from those researchers trying to solve the theoretical and practical problems faced by OR. I shall consider this break instead as a direct result of the changes of power relations and the production of new ways of self-understanding on the factory floor and in society. This is to say, it came as a direct result of the emergence of certain forms of democracy and participation, the incorporation of OR techniques into the standard training of new generations of managers, and the availability of computers and software packages. These events made OR techniques widely available and not only the property of a small group of highly trained individuals.

This process of "organisational learning" and the loss of the organisational power perceived by OR practitioners, who until then were directly involved in corporate planning, is what I called the "de-skilling of OR". I see some resemblance between this phase of OR's life and the de-skilling of craftsmanship in the development of the "factory" in the early stages of the industrial revolution - as will be explained in Chapter 5. That is why it does not come as a surprise to me that if OR practitioners were to survive, they would have to incorporate – or align themselves with - the new principles of the management sciences as practised on the factory floor. OR had to re-invent itself. This re-invention took place in the shape of the new soft systems thinking.

In sum, even though I followed the "official" breaks in systems thinking and practice in the UK, I have moved away from the accounts that suggest the emergence of new researchers who somehow "miraculously" found the way forward for OR,[52] to an explanation that places OR within wider social phenomena: that is, the emergence of new paradigms in the management sciences which, in turn, interact with the new ideals of a free, democratic, and participative society producing a new type of worker. Finally, I refer to this break not in terms of changes within the discipline alone, but also in the

[52] These official accounts do not explain why this break occurred when it did, and why it happened in that particular way.

production of a new type of OR practitioner; that is why I called this section "the production of the Social Operational Researcher".

In terms of the emergence of soft systems thinking, it is no surprise that it was successfully promoted by Peter Checkland, a former chemical engineer. From my own experience I know that the study of traditional OR techniques is a very important part of the training within this discipline. I had also myself endured the disillusion that a young engineer faces when realising that most of the problems found on the factory floor are only remotely related to the type of problems OR has been designed to tackle. This is especially the case when one considers that most of those technical problems have already been solved and have been incorporated into the development of new equipment and new production processes. It is also the case that once one steps onto the factory floor, one encounters a type of worker not considered in the engineering training: that is, a worker who calls for participation and for his/her views to be taken into account. To make matters even more difficult, from the very first moment, I found myself immersed in a highly complex network of power relationships that could not be satisfactorily explained in terms of the old "management's right to manage" vs. "workers organised resistance" relationship. Trying to address these issues, I initially read for a Masters degree in Human Resource Management. It was during this programme that I first encountered soft systems thinking, and it explains why I came to the UK to read for a MA in Systems Thinking, before even considering reading for a PhD degree. I consider it very important to

acknowledge my own experience in highlighting the origins and the extent to which I wanted to explore, from a different perspective, the relationship between systems thinking, management sciences, and the production of what I call the "socio-emotional" worker.[53] I strongly believe that Foucault provided me with the tools with which to conduct this exploration.

In a similar fashion, I shall then move towards the emergence of CST. As stated above, I wanted to highlight the origins of CST and focused on a particular historical moment. This break, since it occurred just a few years ago, presents certain theoretical and practical problems. First of all, it could be argued that I am investing too much importance in the work of only two researchers - although they founded the first centre for CST research, and each is heavily involved with the most active research centres on the subject in the UK. This is partially true. I suppose this choice would be far less controversial if I were interested in researchers who have long finished their work and whose importance had already been assessed. It is also probably the case that in this particular instance the arbitrariness in the selection of a research topic is more evident than if I wanted to explore a particular moment in history. Further complications arise from the fact that there is a very clearly defined and mature group of researchers currently working with these two researchers. Finally, to focus on Flood and Jackson's work could seem unfair since there is so much intellectual work available since these

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[53] This term will be introduced and explained in Chapter 5.

initial writings were published - some of which has addressed perspicuously certain of the problems found in CST and has provided many different paths for its further development.

In this context, the first questions that must come to the mind of those working in CST when reading this research could be how it is contributing to the development of the discipline, and what the usefulness is of a piece of research that tries to demystify the origins of CST's ideas while portraying it as being within the interests of management sciences.[54] To those genuinely interested readers I have no hope to offer, nor other justification than my own research interests, Foucault's theoretical framework, and the practical limitations that a PhD thesis must face in terms of time and scope.

1.2 The aims of this Thesis.

The objectives of this thesis can be summarised as follows:

- To give a very brief account of the genesis and development of critical theory and critical history. This exploration has a twofold purpose. On the one hand, it will be used as a preamble to the detailed discussion of Foucault's work that will be undertaken. On the other, it will help to

[54] Especially since CST has claimed to hold a critical stance on management theory and practice.

introduce those aspects of Foucault's thought that can be better understood when contrasted with Habermas's ideas.

- To explore the work of Michel Foucault. I shall attempt to look both at the most recent of his intellectual productions which have not been studied before within CST, and also to reinterpret previous readings such as those made by Flood (1990) and others. The outcome of this exploration will be a clear and consistent theoretical framework that will form the basis for the subsequent chapters.

- To provide a Foucauldian review of some of the ideas that have produced management theory and practice, especially in the UK. This review is highly relevant in highlighting the some of the issues that have inspired the production of systems thinking in the UK in the past half-century.

- To explore the genesis and development of Operational Research and Soft Systems Thinking in the UK. This exploration will be essential because CST emerges as a critique of ideas and practices in these areas, inspired by contemporary debates in the social sciences.

- Finally, to provide an account of some of the historical conditions that have produced CST. In exploring these conditions CST itself, and the knowledge it has created, will be problematised. Although the origins of

CST are portrayed as emerging from the critique of hard and soft systems thinking, I shall argue that CST has been mainly concerned with the redefinition of systems thinking according to the recent managerial discourses, rather than with problematising the very foundations of systems thinking and practice. The incorporation of particular concepts taken from contemporary philosophy allows CST, acting as a new official discourse, to mask those same micro-techniques of normalisation that it is supposed to stand against.

1.3 The structure of this Thesis.

In line with the objectives of this research project, the structure of this thesis has five interrelated sections – see Figure 1.2. Chapter 2 consists of a brief exploration of the genesis and development of Critical Theory, with some attention being paid to the work of Habermas. Chapter 3 comprises an in-depth exploration of Foucault's ideas, including a description of his critical project, or "the critical ontology of ourselves". This analysis will provide a general theoretical framework that will be used in the following chapters.

In Chapter 4, a Foucauldian exploration of certain ideas found in Management theory and practice will be provided, in order to highlight some important issues that will be used in analysing the production of systems thinking in the UK.

Chapter 5 comprises the construction of a critical history of the origins of Operational Research (OR) and Soft Systems Thinking in the UK. This study will provide some other themes that, with the issues discussed in previous chapters, provide a general framework within which the analysis of CST will be undertaken.

In Chapter 6, a critical history of the origins of CST will be undertaken,[55] emphasising certain very important aspects highlighted in earlier chapters. It is not implied that this account constitutes the definitive history of the origins of CST; rather, it is a coherent account that will interrelate the themes highlighted in the previous chapters and also some themes central to CST. Finally, some conclusions and directions for further research will be provided in the last chapter.

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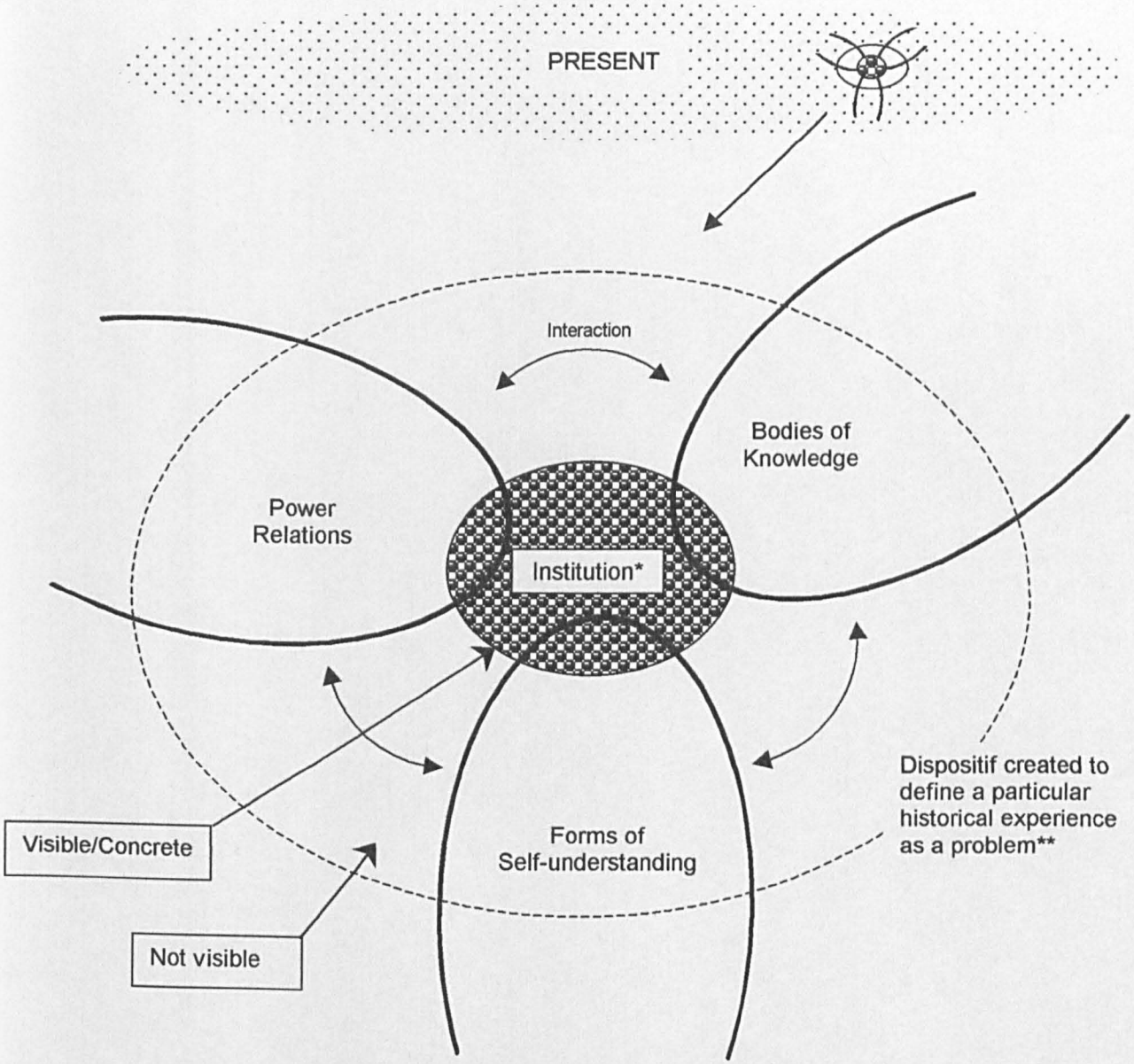
[55] By "critical history" I understand a historical account framed within a Foucauldian framework, as will be explained in Chapter 3.

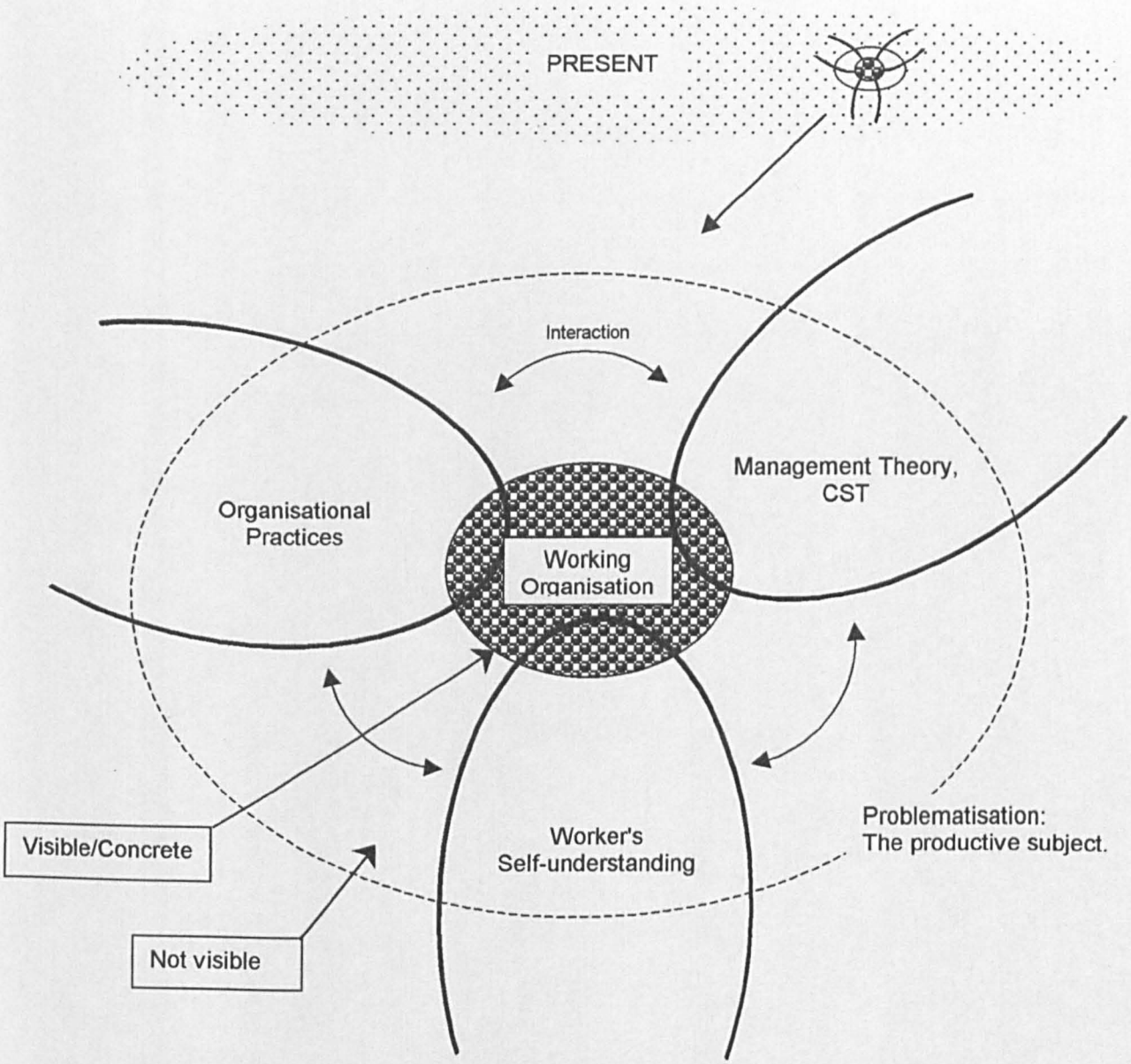
Figure 1.1 The Dispositif.



*Constitutes part of the answer given to a particular problematisation. Multiple problematisations are simultaneously created and modified at any particular historical moment.

**The dispositif, any problematisation, and the present cannot be fully understood.

Figure 1.2 General Outline of the Critical History of the Origins of CST.



Chapter 2: The Genesis of Critical Theory and Critical History.

2.1 Introduction.

The general purpose of this chapter is to provide a context for the discussion of the work of Michel Foucault that will be undertaken in Chapter 3. Since Foucault's work has been often associated in CST with the work of Jürgen Habermas (e.g., Flood, 1990), it seems pertinent to pay attention in this chapter to a few of the latter's ideas, too. Furthermore, some important commentators (e.g. Couzens-Hoy, 1994) argue that Foucault's and Habermas's ideas represent - in very distinct ways - reinterpretations of some of the questions that inspired the philosophical work of Max Horkheimer and Theodore Adorno. Therefore, the chapter will begin with a review of the origins and development of critical theory, as initially proposed by these thinkers.

The first part of the chapter will focus on Horkheimer's (1972) initial attempts to develop a critique of the "traditional" conception of science that seemed to underpin the social sciences of his time. This critique will be the basis for his proposal for a "critical theory of society". After a brief introduction, some of the tensions present in his ideas will be explored.

Next, a second phase in Horkheimer's work (in collaboration with Adorno), will be approached. This second stage represents an expansion from the critique of rationalism in science to the critique of the entire era: i.e., the "traditional" conception of science becomes a mere manifestation of a greater problem. From this analysis a pessimistic view regarding human nature and society emerges - a view reinforced by the horrors witnessed during the Second World War. Some of the implications of this view will also be highlighted. Furthermore, two of the major assumptions that seem to underpin this pessimistic view will be looked at: the denial of necessity in history, and the insistence on discontinuity and incommensurability in history.

The second part of this chapter will concentrate on the development of critical history and the differences between Habermas and Foucault. The main issue considered is Habermas's evolutionary explanation of social development *versus* Foucault's genealogical approach.

2.2 The Origins of Critical Theory.

2.2.1 Horkheimer's initial steps: The critique of the traditional conception of science.

In *Traditional and Critical Theory,* Horkheimer wants to make a distinction between what he calls "traditional theory", that supports the natural sciences, and a critical activity "which has society itself for its object." (p. 206)

He defines traditional theory as "stored-up knowledge, put in a form that makes it useful for the closest possible description of facts" (p. 188). It is epistemologically supported by the idea that the validity of a particular theory is not related to its genesis or its use: i.e., it grants some sort of neutrality between the theoretician, the historical context in which it originates, and the facts it aims to explain.

> The social genesis of problems, the real situations in which science is put into use, and the purposes which it is made to serve are all regarded by science as external to itself. (p. 244)

This conception of traditional theory also implies that a theory must have a practical application, and its validity must be assured by the closeness between the results of its application and the facts it wants to explain. Finally, it must include other varieties of theories, i.e., the theories not contemplated within it are considered counter-examples.

After the development of this conception of theory in the natural sciences, as Horkheimer (1972) remarks, "the sciences of man and society attempted to follow the lead of the natural sciences with their great successes" (p. 190). This process has been followed in two major ways: the first one, through the collection of all sorts of facts dealing with social life. The second one was through the formulation of abstract principles and the analysis of basic concepts by scholars. However, as he concludes,

> These differences do not signify a structural difference in ways of thinking ... the various schools of sociology have an identical conception of theory that it is the same as theory in the natural sciences (p. 191).

In contrast to this traditional conception of theory, as established by Descartes, Horkheimer defines a kind of context-bound theory in which the neutrality granted to the traditional theory, in terms of the historical context in which it originates and the facts that it aims to explain, disappears. This new activity is called "the critical theory of society":

> The critical theory of society has for its object men as producers of their own historical way of life in its totality. The real situations which are the starting-point of science are not regarded simply as data to be verified and to be predicted according to the laws of probability. Every datum depends not on nature alone but also on the power man has over it. Objects, the kind of perception, the questions asked, and the meaning of the answers all bear witness to human activity and the degree of man's power. (p. 244)

As a consequence, as Couzens-Hoy (1994) points out, "unlike traditional theory, which assumes its own neutrality and therefore neither does or can investigate itself for blindness and bias, critical theory would suspect itself of both" (p. 105).

In this context, Horkheimer's concern is related to the role of traditional theory in society when it takes the existing social norms as natural, reinforcing the *status quo* in an "inhuman society" based on inequality and injustice.

Horkheimer does not suggest, however, that traditional theory (as a theory) could be improved by critical theory, nor to compare different examples of traditional and critical theories to decide which is best. His concern is simply to explore the implications of these two different concepts.

Despite this, there are some problems that must be taken into consideration. If critical theory simply assumes the inevitability of its context-bound character, any attempt at being self-conscious of its own historically motivated distortions would be futile. Or perhaps, in the process of improving itself through self-criticism, it could reach a point in which it would liberate itself from its context-bound character, i.e., it would presuppose that the neutrality held by traditional theory would be its limit.

Besides this, it is not enough to be critical about the assumptions of traditional theory, because its role could be confined to what Horkheimer (1972) calls "traditional social criticism": that is, the questioning and refinement of traditional scientific theories by informing them of the particularities of their social context. This could lead to a critical theory that would be parasitic on those social norms that it takes to be natural. Horkheimer (1972), who is also aware of these problems, tries to differentiate "traditional social criticism" from "critical activity", as follows:

> Although it [critical activity] itself emerges from the social structure, its purpose is not, either in its conscious intention or in its objective significance, the better functioning of any element in the structure. On the contrary, it is suspicious of the very categories of better, useful,

> appropriate, productive, and valuable, as these are understood in the present order, and refuses to take them as non-scientific presuppositions about which one can do nothing. (p. 207)

As will be discussed later on, because critical activity does not intend to improve any element of the present structure, its critics would say that it is likely to be fruitless, anarchistic or nihilistic; a criticism that could be as easily raised against Foucault as Horkheimer. Critical activity does not seem to improve anything, and does not give any guidelines for action or any goal to pursue.

However, these problems cannot totally undermine the intentions of Horkheimer's critical theory. As Couzens-Hoy (1994) remarks,

> The advantage of critical activity is that it reveals the parasitism of traditional theory on established social norms. The methodological superiority of critical activity is that it bites the bullet and admits itself to be parasitic on social contexts as well (p. 106).

In terms of Horkheimer's early conception of critical theory, as conceptualised in *Traditional and Critical Theory*, there are some other tensions that are worth considering. Firstly, there is a paradoxical circularity in the way he uses the word "inhuman". Secondly comes the identification of the human with the rational, and his consequent conception of rationality as innate to human beings. Thirdly, we have his claim of an "outside standpoint" for critical theory; and finally, his attempts to project a philosophy of history. Each of them will be explored in the following paragraphs:

First, Horkheimer uses the term "inhuman" as if it were neutral. As Couzens-Hoy (1994) says, this term is

> [N]ormative and theoretically laden from the start. Circularity threatens if the claim that present society is inhuman is both a premise and a conclusion of critical theory. Critical rather than traditional theory arises precisely in an inhuman society, but that a society as a whole is inhuman could be asserted only from the standpoint of a developed critical theory. (Couzens-Hoy, 1994, p. 109)

Besides this, as Couzens-Hoy (1994) argues, except for the word "inhuman", it looks as if the "distinctions between traditional and critical theory are of degree rather than differences of kind". That is,

> [C]ritical theory would differ from traditional theory only in being more rather than less self reflective, or more rather than less suspicious of everyday customs. While there might be practical limitations on traditional theory, there would be nothing in principle that would prevent traditional theory from turning its attention to a different or wider range of phenomena (p. 109).

The second tension identified is related to the condemnation that Horkheimer (1972) makes of traditional theory for moral reasons:

> There will always be something that is extrinsic to man's intellectual and material activity, namely nature as the totality of as yet unmastered elements with which society must deal. But when situations which really depend on man alone, the relationships of men in their work, and the course of man's own history are also accounted for as part of "nature", the resultant extrinsicality is not only not a suprahistorical eternal category (even pure nature in the sense described is not that), but it is a sign of

> contemptible weakness. To surrender to such weakness is nonhuman and irrational. (in Couzens-Hoy, p. 110)

The problem in these claims is that they are linking the "human" to the "rational". He is suggesting that individuals and society should look for a state of full rationality. As a consequence, Horkheimer is retaining the status given to reason by Descartes and the German idealists.

Furthermore, Horkheimer (1972) also claims that "the thrust towards a rational society, which admittedly seems to exist today only in the realms of fantasy, is really innate in every man." (p. 251) In this context, he is linking the rational with the innate, positing reason as an eternal category. Couzens-Hoy (1994) stresses that:

> Objections of both an external and an internal sort are obvious. Whether everyone does experience the thrust of rational society is questionable, since many may really fear the thoroughly planned society. Even if they take part in the planning, they may feel that unanticipated consequences will be as likely to diminish as to increase freedom in comparison to existent society. (p. 111)

Another problem in Horkheimer's account is related to the suggestion that everything in society is affected by the inhumanity of social practices:

> If activity governed by reason is proper to man, then existent social practice, which forms the individual's life down to its least details, is inhuman, and this inhumanity affects everything that goes on in society. (Horkheimer, 1972, p. 210)

In this paragraph it is assumed that it is possible to have an outside standpoint from which to judge society. As a consequence, Couzens-Hoy (1994) points out that

> Critical theory faces a methodological problem in that insofar as it wants to be a "theory", it is bound to make general claims about the whole social configuration. But since it also wants to be "critical", it must be suspicious of such totalizing claims and of any assertions about the society implying not a partisan and partial, but an impartial and undistorted view of the whole. (p. 112)

As a consequence, since Horkheimer starts his reflection with the question "What is theory?", his main concern being the different conceptions of theory, he does not explain why it is necessary to have a theory in order to be critical, or why the critical "activity" he describes must become critical "theory". This major and unchallenged assumption was of paramount importance in subsequent debates between the Frankfurt School and the French post-structuralists, as we will see later on. This point is highlighted by Couzens-Hoy (1994) when saying,

> [W]hat is not clear, however, is why the critical activity needs to evolve into a fully explicit social theory of the social whole, or why it would need to construct a conception of an ideal social order. Is critical activity necessarily totalizing and Utopian (and thus "theoretical"), or can it succeed even if it is piecemeal and pragmatic? (p. 107)

2.2.2 Horkheimer and Adorno: the critique of the entire era.

The book *Dialectic of Enlightenment* was originally written by Horkheimer and Adorno in 1944, "when the end of the Nazi terror was within sight" (p.

ix). After the horrors the Western world witnessed during the Second World War, they questioned "why mankind, instead of entering into a truly human condition, is sinking into a new kind of barbarism" (p. ix).

In this context, the scope of critical theory is expanded from the critique of rationalism in science to the critique of the entire era, that is, the traditional conception of science becomes a mere manifestation of a greater problem whose origins can be found in the blind faith in reason and the practical tendency to self-destruction.

> Not merely the ideal but the practical tendency to self-destruction has always been characteristic of rationalism, and not only in the stage in which it appears undisguised...rationalism is deduced from the nature of the dominant *ratio* itself, and the world which corresponds to its image. (p. xvii)

This book is paradoxical since it is caught in the notion of Enlightenment that its authors want to overcome. They assume that it is possible for a genuinely enlightened knowledge to lead us to increased freedom. As Horkheimer and Adorno (1972) say, the "critique of Enlightenment is intended to prepare the way for a positive notion of Enlightenment which will release it from the entanglement in blind domination" (p. xvi).

Nevertheless, since the *Dialectic of Enlightenment* never specifies what this positive notion of Enlightenment looks like, its final effect could be more of an abandonment of any faith in reason; i.e., some kind of historical

pessimism. The immediate consequence of this position is that the moral condemnation of repressive practices and barbarism that Horkheimer engaged in when writing *Traditional and Critical Theory* seems sterile.

This historical pessimism can be illustrated with a quotation from Adorno's (1979) *Negative Dialectics*, when he says:

> Universal history must be construed and denied. After the catastrophes that have happened, and in view of the catastrophes to come, *it would be cynical to say that a plan for a better world is manifested in history and unites it.* Not to be denied for that reason, however, is the unity that cements the discontinuous, chaotically splintered moments and phases of history, the unity of control of nature, progressing to rule over (people), and finally over (people's) inner nature. No universal history leads from savagery to humanitarism, but there is one leading from the slingshot to the megaton bomb. *It ends in the total menace which organised (humanity) poses to organised (human beings), in the epitome of discontinuity.* (p. 320; my italics)

From this text, it is not clear if Adorno is abandoning the search for a continuous universal history, or if he has simply replaced the Kantian and Hegelian link between reason and progress with a negative view that would link reason and destruction. To understand the implications of this position let us see the different senses in which it could be understood.

On the one hand, in Kantian terms, historical progress is more a hope than a certainty since we cannot know what the future will bring. Thus progress represents a regulatory idea. However, this idea also represents, for Kant,

the basis of our actions: i.e., we must act as if our actions could be contributing to the realisation of that progress.

On the other hand, the negative view is not even a story in the same sense, since its actualisation would show that there was no sense after all, in the event that someone could survive the total destruction to "tell the story". Furthermore, the negative story cannot be constitutive of our actions in the same sense as the positive one: all we can ever do is act so that an undesirable outcome will not occur or will be postponed. However, if this view implies that the cause of destruction is our faith in reason and knowledge, the negative view would be still regulatory. In this context, being consistent with Adorno's ideas, as Couzens-Hoy (1994) notes,

> The conclusion of the negative story does not pull all previous history together into a continuous development, but gives us instead accidental, arbitrary events or at most discontinuous, fragmentary histories of uncorrelated starts and stops ... Negative universal history is thus not really universal history at all, but disperses this totalizing conception of history ... the *Dialectic of Enlightenment* sees the smooth social functioning introduced by bureaucracy, technology, and conformism as masking a more chaotic and brutal level that constantly threatens to erupt. The threat is not decreased by the apparent rational antidote of increasing social regulation, but on the contrary, is feared all the more. (p. 118)

In order to clarify even more the characteristics and implications of this negative perspective, let us briefly discuss its two main assumptions: the

denial of "necessity" in history, and its insistence on discontinuity and incommensurability in history.[56]

2.2.2.1 The denial of "necessity" in history.

The Enlightenment conception of necessity involves what Horkheimer and Adorno (1972) call a mythological attitude in terms of looking at historical events in a static and fatalistic way; that is, in assuming that events are repetitive and human actions cannot break free of fate:

> Mythology itself set off the unending process of enlightenment in which ever and again, with the inevitability of necessity, every specific theoretic view succumbs to the destructive criticism that it is only a belief - until the notions of spirit, of truth and, indeed, enlightenment itself, have become animistic magic. The principle of fatal necessity, which brings low the heroes of myth and derives as a logical consequence from the pronouncement of the oracle, does not merely, when refined to the stringency of formal logic, rule in every rationalistic system of western philosophy, but itself dominates the series of systems which begins with the hierarchy of the gods and, in a permanent twilight of the idols, hands down an identical content: anger against insufficient righteousness. Just as the myths already realise enlightenment, so the enlightenment with every step becomes more deeply engulfed in mythology. (p. 11)

In the context of these remarks, the Enlightenment's historical determinism assumes necessity both logically and empirically, since it is concerned with

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[56] Couzens-Hoy (1994) suggests these two aspects because "they point up the difference between a more traditional conception of history and the "critical" rejection of "history"... the contrast I am drawing more from Adorno between traditional and critical history represents a partial critique of Hegel, one that is inspired initially by Nietzsche and practised later by Michel Foucault." (p.119).

the rigorous connection between premisses and conclusions, and the exclusion of other possibilities once the logical connection is made. In contrast, a nondeterministic, dialectical view of necessity, originated in Hegel, would be concerned with sets of beliefs, assumptions and practices as they appear in different historical configurations.

The Hegelian view assumes that changes in sets of beliefs would occur because of internal problems within them, rather than external conditions, so a new set of beliefs would replace them when a crisis arises. However, since Hegel assumes that phenomenology has only a single conclusion then, as Horkheimer and Adorno (1972) say,

> By ultimately making the conscious result of the whole process a negation totally in system and in history into an absolute, he of course...lapsed into mythology. This not merely happened to his philosophy as the apotheosis of progressive thought, but to Enlightenment itself...For Enlightenment is as totalitarian as any system. Its untruth does not consist in what its romantic enemies have always reproached it for: analytical method, return to elements, dissolution through reflective thought; but instead in the fact that for enlightenment the process is always decided from the start. (p. 24)

What is important to conclude from this analysis is that, since no theory can take itself too seriously because of its historical limitations, we should be suspicious of attitudes of absolute certainty. In this sense, theorising about critical theory as such should give way to what Couzens-Hoy (1994) calls "doing critical history", that is, abandoning hopes for a unique theory in favour of "immanent criticism" or practical critical history. In this context if we remove

> [T]he absolute from the conclusion of Hegel's phenomenological narrative [it] would quickly generate a pluralism that would be difficult to limit. The result would come close to the French poststructuralism claim that any text is involved with other texts in an infinite network of readings. (Couzens-Hoy 1994, p. 123)

Furthermore, since the claims of absolute correctness involved in having the only possible explanation are not possible to sustain, the terms "theory" and "necessity" become less relevant. As a consequence,

> Instead of a conception of theory as supplying the only explanation of the necessary occurrence of events, we are left with an interpretation of how the events were possible. If the interpretation is a good one, it will give an account that seems highly likely, but it cannot claim to be the only possible account. (Couzens-Hoy 1994, p. 124)

Let us now take a look at the second assumption that underlies Adorno's historical pessimism.

2.2.2.2 The insistence on discontinuity and incommensurability in history.

The Enlightenment conception of continuity can be understood in "mythological" terms, as we have seen, as a repetition of itself or as a process of "continuous improvement", in which the present represents a typical moment in the gradual progression to a better future. In this context, it is possible to understand the Enlightenment attempts to exclude whatever does not fit into its domain, the discontinuous and the incommensurable, as being "outside" reason, while its conception of theory attempts to capture reality as it is.

Adorno and Horkheimer (1972) criticise the traditional conception of theory as an attempt to reduce things to abstract signs in terms of properties and relations, which allows rational thinking and science, but puts everything on a grid to compare everything with everything else.

In contrast, dialectical thinking cannot claim a superior knowledge or provide a normative framework to describe how improvement is possible. It assumes that there is an incommensurable gap between ideal and real states of affairs, so it is Utopian to posit a better world. In this sense, "Utopian" must be understood as independent of any concrete social programme, so its difference with the present could lead to resignation. In Adorno's (1975) terms: "The Utopian impulse in thinking is all the stronger, the less it objectifies itself as Utopia - a further form of regression - whereby it sabotages its own realisation. Open thinking points beyond itself." (p. 168)

Nevertheless, Adorno's denial of necessity in the flow of historical events, his insistence on history as "the unity of continuity and discontinuity", and that "the unity of history" or "world spirit", is defined not as a progressive social emancipation but instead as "permanent catastrophe", seems to make criticism pointless and ineffective.

The central problem here is that Adorno's insistence on discontinuity and incommensurability may lead to the diminishing of the present. As

Couzens-Hoy (1994) points out, "If our own discourse may be incommensurable with future discourses, its value is diminished even for us since we can no longer believe ourselves to be communicating effectively with our future selves". (p. 128)

Despite these difficulties, what Horkheimer and Adorno (1972) want to illustrate is that rationalism leads to homogenisation and conformism, in the same way that it dissolves the incommensurable to universal, abstract and interchangeable signs: "Not only are qualities dissolved in thought, but (people) are brought to actual conformity". (p. 12) In this context, they also conclude that

> Even the deductive form of science reflects hierarchy and coercion. Just as the first categories represented the organised tribe and its power over the individual, so the whole logical order, dependency, connection, progression, and union of concepts is grounded in the corresponding conditions of social reality - that is, of the division of labour. But of course this social character of categories of thought is not, as Durkheim asserts, an expression of social solidarity, but evidence of the inscrutable unity of society and domination. Domination lends increased consistency and force to the social whole in which it establishes itself. (p. 21)

As Couzens-Hoy (1994) comments, Adorno and Horkheimer anticipated Foucault's *Discipline and Punish* in terms of conceiving domination not

> [A]s something that some particular people do to some other people, but as what people do to themselves even though it is not in their real interest to do so....[People must learn to]...model their body and soul according to the technical apparatus if they are to earn and survive...The appearance of this irresistible machine is the source of the misguided "ideological" belief in

> both the necessity of the system as well as the value of the system's historical realisation. (p. 129)

Let us try to summarise the issues discussed so far. First, we discussed the origins of critical theory in terms of Horkheimer's initial critique of the traditional conception of science. This critique constituted the basis for a critical activity which had society itself for its object. Next, we discussed how Horkheimer and Adorno expanded this initial critique of rationalism in science to the critique of the entire era. This expansion assumed that the traditional conception of science is a manifestation of wider phenomena: these are, a blind faith in reason and a practical tendency to self-destruction whose consequences were tangible during the Second World War.

In this context, they assume that through the critique of the entire era it was possible to prepare the way for a positive notion of Enlightenment. However, since they never specify what this positive notion of Enlightenment would look like, its final effect seems to be some kind of historical pessimism.

Then, I explored the implications of this historical pessimism, clearly found in Adorno's *Negative Dialectics*, to see whether it involved an abandonment of the search for a continuous universal history, or whether it merely replaced the link between reason and progress with a link between reason and destruction. Furthermore, I then discussed the main assumptions involved in this negative position: the denial of necessity and his insistence on discontinuity and Adorno's incommensurability in history.

Finally, this discussion highlighted some interesting similarities between Horkheimer and Adorno's position and Foucault's conception of power (which will be discussed in depth in the next chapter). The link is important because it will allow us to contrast some important differences between Foucault's thought and Habermas's - the later as an inheritor of the tradition started by Horkheimer and Adorno, known as the Frankfurt School.

The acknowledgement of certain common concerns between Foucault and the Frankfurt School, which constitutes Couzens-Hoy's (1994) central argument, needs to be taken with caution:

> What I wish to argue is that French poststructuralism is an alternative way of continuing the tradition of critical theory. To make a case for the continuation of critical theory in poststructuralism is difficult since the connections are not obvious. From the perspective of history there is no direct tutelage between the founders of the Frankfurt School and the French, as there is between Adorno and Habermas.... Speaking of the connections between the Frankfurt School and French poststructuralism requires one to reconstruct affinities instead of influences since the historical interactions were tangential. (p. 144)

In the context of these remarks, let us approach the relationship between the French post-structuralists and the Frankfurt School through a comparison of the work of Foucault and Habermas (arguably the two contemporary authors with greatest prominence).

2.3 Foucault and Habermas.

When looking at the possible affinities between Foucault and Habermas, it is important to state a basic difference in their relationship with Horkheimer and Adorno's work:

> [W]hereas Foucault is interested in the *historicity* of reason, Habermas is interested in the *theory* of reason. Each sees his question as the only possible way out of what Horkheimer and Adorno called the dialectic of enlightenment. That is, the modern search for knowledge that promised enlightenment and freedom but has produced domination and barbarism as well. (Couzens-Hoy, 1994, p. 146)

We should also note that a link between Foucault and the Frankfurt School cannot be taken for granted since, in an interview with Duccio Tombadori, Foucault (1991) remarks that he had little knowledge about the founders of the Frankfurt School when he produced his major ideas:

> I knew little about the Frankfurt School. I had read certain texts of Horkheimer's dedicated to an entire ensemble of discussions whose meaning I understood with difficulty, and in which I felt a certain laxness, above all, concerning the historical materials analysed. Then I recall having read a book on penal problems and the mechanisms of punishment that had been written in the USA by Kircheimer. (pp. 116-117)

This is not to say that Foucault does not acknowledge the importance of the path opened by the work of the Frankfurt School. To illustrate this point, let us quote some statements made by Foucault in his interview with Raulet in 1983:

> If I had been familiar with the Frankfurt School, If I had been aware of it at the time, I would not have said a number of stupid things that I did say and I would have avoided many of the detours which I made while trying to pursue my own humble path - when, meanwhile, avenues had been opened up by the Frankfurt School....And when I was a student, I can assure you that I never once heard the name of the Frankfurt School mentioned by any of my professors. (p. 200)

Foucault values the Frankfurt School's avoidance of what he calls the "blackmail of reason", i.e., that one must be either *for* reason or be irrational. He calls this attitude "blackmail" because it renders the rational critique of reason impossible.

> I think that the blackmail which has very often been at work in every critique of reason or every critical inquiry into the history of rationality (either you accept irrationality or you fall prey to the irrational) operates as though a rational critique of rationality were impossible. (Foucault in Raulet, 1983, p. 201)

Habermas, according to Raulet, in a separate interview praised Foucault's

> [M]asterly description of the moment reason bifurcated. This bifurcation was unique. It happened once. At a certain point, reason took a turn which led it to instrumental rationality, an auto-reduction, a self-limitation. This bifurcation, if it is also a division, happened once and once only in history, separating the two realms with which we have been acquainted since Kant. (Raulet, 1983, p. 201)

Using this quotation, we can illustrate another central difference between the two philosophers. While Habermas acknowledges a bifurcation of reason that, since it occurred once, can be rectified, and which seems to be at issue

in the struggle for emancipation, Foucault assumes that reason is in a *constant process* of bifurcation in some way or another. Foucault remarks,

> I would not speak about *one* bifurcation of reason but more about an endless, multiple bifurcation - a kind of abundant ramification. I do not address the point at which reason became instrumental. At present, for example, I am studying the problem of techniques of the self in the Greek and Roman antiquity; how man, human life and the self were all objects of a certain number of *technai* which, with their exacting rationality, could well be compared to any technique of production ... without comprising the whole of society ... this does not constitute *the* bifurcation of reason ... it was an important event, or episode; it had considerable consequences, but it was not a *unique* phenomenon. (Raulet, 1983, p. 201)

Let us also understand some other differences of paramount importance in the debate between Habermas and Foucault. Firstly, whereas Habermas assumes that the rational critique of rationality requires a previous theory of "what rationality really is" in order to assess current understandings, Foucault thinks that "reason is self-created", which means that humans develop different conceptions of rationality given specific historical conditions.

Secondly, as will be shown in the next chapter when discussing Foucault's critical project, he considers himself an heir to Kantian thinking, and in particular of the ideas expressed by Kant in an article called "What is Enlightenment?". What is relevant for Foucault from this article is that Kant is trying to reflect on the present without emphasising the present over the past. In this context, Foucault does not assume, as Habermas seems to do,

the superiority of present rationality over past practices; nor does he assume, as others do, the "collapse of reason". In this respect, he says that

> For me, no given form of rationality is actually reason. So I do not see how we can say that the forms of rationality which have been dominant in the three sectors I have mentioned (types of knowledge, forms of technique, and modalities of government or domination) are in the process of collapsing or disappearing. I cannot see why we should call this transformation a collapse of reason. Other forms of rationality are created endlessly. So there is no sense at all to the proposition that reason is a long narrative which is now finished, and that another narrative is under way. (Foucault in Raulet, 1983, p. 205)

As a consequence, he assumes that the present is similar to the past in the sense that they are both problematic, however different these past and present problematics may be.

> [O]ne of the most harmful habits in contemporary thought, in modern thought even; at any rate, in post-Hegelian thought: the analysis of the present as being precisely, in history, a present of rupture, or of high point, or of completion or of a returning dawn, etc. The solemnity with which everyone who engages in philosophical discourse reflects on his own time strikes me as a flaw. ... [We should not] allow ourselves the facile, rather theatrical declaration that this moment in which we exist is one of total perdition, in the abyss of darkness, or a triumphant daybreak, etc. It is a time like any other, or rather, a time which is never quite like any other. (Foucault in Raulet, 1983, p. 206)

Finally, Foucault has been unfairly attacked because his critics assume that he is in favour of the post-modern slogan "anything goes". They also claim that since he does not assume a theory of rationality, his method would deny reason or would look for its destruction. Some say that Foucault's studies

constitute a pessimistic view of the present without any possibility of improvement. As Couzens-Hoy (1994) highlights, Foucault, in his investigations of the unique but problematic present that he calls genealogy wants to

> [R]emind us that reason's assumption of its own necessity and universality may be an illusion that ignores its historical formation in the past, its precariousness in the present, and its fragility in the future....The point is not to show that historical forms of rationality are in fact irrational, or what an ideal form of rationality would be. Instead, the goal is to realise that because these forms of rationality have been made, they can be unmade. So genealogy does not deny rationality as such. Instead, it investigates rationality not as abstract theory, but as enmeshed in the background web of concrete practices. Foucault's focus on different, historically-changing forms of rationality is thus a preference for inquiry that is substantive, concrete, and specific instead of abstract, general, and purely procedural.. (p. 147-148)

Having introduced the debate between Habermas and Foucault, let us explore in more detail an interesting feature of Habermas's thought: his developmental, evolutionary account of reason, in contrast to a different conception of evolution as inherited from Nietzsche and developed by Foucault.

2.3.1 Habermas's evolutionary explanation of social development, or "rational reconstruction".

After metaphysics, which granted a special position to human beings within the natural world, philosophy has become naturalistic in order to help us to avoid, as Rorty (1979) says, "the self-deception of thinking that we possess

a deep, hidden, metaphysically significant nature which makes us "irreducibly" different from inkwells or atoms". (p. 373)

However, this is not to say that naturalistic philosophy is reductionistic: it does assume that human activity is more than just a physical process - it is also the result of social processes. As Taylor (1985) remarks,

> What has been argued in the different theories of the social nature of (human beings) is not just that (they) cannot physically survive alone, but much more that they only develop their characteristically human capacities in society. The claim is that *living in society is a necessary condition of the development of rationality*, in some sense of this property, or of becoming a moral agent in the full sense of the term, or of becoming a fully responsible, autonomous being. (p. 190; my italics)

In this context, it is necessary to highlight the term "development", and to reflect upon the different ways in which evolutionary development can be understood. Evolution does not necessarily entail a gradual process, or a progressive one. It may be made up of sudden or discontinuous changes; it can be the result of chance, or reactions to external factors, rather than an internal drive. Let us examine the differences between post-structuralist genealogy and Habermas's rational reconstruction, representing two different ways of conducting naturalistic philosophy, and consequently two different ways of understanding development.

In *History and Evolution,* Habermas (1979a) aims to establish a distinction between evolutionary social theory and historical narratives: i.e., while

abandoning the tradition of universal history he posits that "a theory of evolution must not be expected to fill the role of a theory of history, because history is, as such, not theoretical. Evolutionary theory finds its application not in history writing but in practical discourse" (p. 8). He also says that

> [W]e could anticipate future events, but not as historical. We could probably fictionally assume the standpoint of future historians and from their now anticipated horizon of expectation understand our future as their past. A corresponding history of future pasts would, however, be fictious, not historical but a futuristic novel. Then the idea of a history of all possible histories, i.e., the hypothetical anticipation of history as a whole or the assumption of a totality of history, is incompatible with the narrative structure of histories. Universal history too must limit itself to the reconstruction of the past; it has no prognostic content. (p. 11)

From these remarks we can conclude that Habermas assumes that history cannot be represented teleologically in a single theory, and that any historiographical narrative is only ever retrospective without any prognostic content.

This is of paramount importance since Habermas also suggests that theoretical statements, which support sociological or evolutionary discourses, allow, on the contrary, the derivation of conditional predictions of events that will occur in the future. Although Habermas believes that the predictive capacity of theory is weak, it is nevertheless present and this, in his view, is not the case with historical narrative:

> The prognostic capacity of social theories was and is very limited. That could hardly be otherwise, given the high level of abstraction at which these

> statements concerning complex states of affairs are formulated...It is for methodological reasons that I have insisted on a distinction - but not a distinction of rank - between historiography and social-scientific theory. If one introduces the viewpoint of social evolution into history without mediation, it is very easy to fall victim to patterns of thought familiar from the philosophy of history, above all the danger of thinking in terms of historical teleology, which Marxists in particular have often enough succumbed to. (Habermas in Dews, 1986, p. 167)

In this context, his main goal would be to show, as Couzens-Hoy (1994) points out, that "the evolutionary theory can explain in what respect things are better or more advanced now than before, and how they might develop further. But it does not claim that history necessarily progresses in this manner". (p. 151) These claims highlight one of the major differences of his method with French post-structuralism: he assumes that to be critical means to have universal standards for criticism.

However, if Habermas wants to abandon the presuppositions of a totalising universal history and, at the same time, his evolutionary theory requires some universal standards as to avoid relativism, critical theory requires a new set of necessary presuppositions. These he finds in the philosophy of language. As Couzens-Hoy (1994) remarks,

> [I]dentifying the necessary presuppositions of communicative action and showing that these are an ingredient in the learning processes of social evolution, he believes he has identified universal procedural (not substantive) standards that can be used to criticise past and present events and institutions. (p. 152)

In order to avoid the search for universal structures in history, Habermas (1979b) looks for the universal basis of human interaction (that is, language), since it precedes all social structures: "labour and language are older than man and society". (p. 137)

As a consequence, while accepting that historiography can search for specific human interactions, only evolutionary theory can describe the development of the universal competences that made these interactions possible.

> Such competence has no *history*, but a *development* (which takes in the given case *logically*, i.e., via reconstructible stages). Every history is in principle, open; it assumes that its theme can fall under a new light because of later events ... *For the development of competences whose possibilities of realisation are transparent, there is on the contrary only one single correct theory* - and whether an initially valid theory is replaced by a better one, depends neither on the progress of events nor on changed retrospectives. A history is, in principle, a context of interactions; in it actors create something through their activity. *A competence, however, is acquired* ...Thus the emergence of such competence in only accidentally connected with identifiable persons or groups. *These comprise the substratum of learning processes that are made possible by a corresponding learning level.* (Habermas 1979a, p. 18, my italics)

Habermas, following Kohlberg,[57] is interested in the development of society as a whole, but stresses that it is individuals who go through learning processes. In this sense, he remarks in his interview with Dews that,

> Empirical investigations come out strongly against the idea that all adult members of a society, even of modern Western societies, have acquired the capacity for formal operational thought (in Piaget's sense) or for post-conventional judgements (in Kohlberg's sense). I maintain only (for example, with reference to tribal societies) that individuals can develop structures of consciousness which belong to a higher stage than those which are already embodied in the institutions of their society. It is primarily subjects who learn, while societies can take a step forward in the evolutionary learning-process only in a metaphorical sense. New forms of social integration, and new production forces, are due to the institutionalisation and exploitation of forms of knowledge which are individually acquired, but culturally stored and capable of transmission and so, in the long term, accessible to the collective. (Dews, 1986, p. 168)

However, the post-structuralists, following Nietzsche (1954), not only abandon the notion of universal history, as does Habermas, but also break with the tradition of hope in the progress of humanity, and any nostalgic view of the past. They are aware, as were Horkheimer and Adorno, that the current state of affairs is threatening the survival of the species in the long run. Finally, they assume, like Nietzsche, that the human species is not only temporary, but a mere accident:

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[57] Kolhberg's model assumes that even though individuals need to have cognitive development to support their moral development, they might not all reach the same level. As a consequence, cognitive development is necessary, but not sufficient to reach the higher levels of moral development. It also assumes that these different stages are not only logically necessary, but represent the only way to achieve progress.

> In some remote corner of the universe, poured out and glittering in innumerable solar systems, there once was a star on which clever animals invented knowledge. That was the haughtiest and most mendacious minute of "world history" - yet only a minute. After nature had drawn a few breaths the star grew cold, and the clever animals had to die. (Nietzsche 1954, p. 42)

As proposed before, Habermas's rational reconstruction and the French post-structuralists' genealogy represent two different ways of conducting naturalistic philosophy, and two ways of conceptualising development. Having outlined the Habermasian position, let me briefly describe how the Nietzscheans (including Foucault) conceive of development.

From the extract quoted before, we can see that development for Nietzsche is just a matter of chance, producing different types of species but not better ones. In the context of naturalistic philosophy, human beings thus have no intrinsic superiority over other animals and, if they have different potentials, these are developed only in a few individuals, and in a way that seems more accidental than as a result of human progress. In order to support Habermas's evolutionary account, it would be necessary to reconstruct the appearance of these few highly developed individuals as a result of cultural and historical conditions, rather than as a result of chance. As Couzens-Hoy (1994) concludes,

> To Nietzscheans rational reconstruction as a method thus appears irrelevant. The emergence of rare geniuses cannot be reconstructed if their appearance is underdetermined by the historical and cultural conditions of

> their times. Moreover, Nietzsche tends to think of artists as the exemplars of the higher types, and it seems futile to argue about who was superior, Leonardo or Goethe, or even Caesar or Socrates. So the enlightenment's ideal of self-conscious attainment of universal rationality plays little role in the comparison of these various expressions of power, each of which seems to be superior precisely because of its incommensurability either with other exceptional ones or with its unexceptional contemporaries. (p. 154)

For Habermas, the absence of universal standards would make impossible the evaluation of past and present conditions, and therefore we would have to surrender to the *status quo*, or else wait for the destruction of humanity. The task, if genealogy has anything to offer, would be to demonstrate that there are alternatives that make critique possible, other than with the Enlightenment's rationalistic assumptions. Since a full account of Foucault's genealogical method will be produced in the following chapter, let us discuss for the moment a general critique of Habermas's rational reconstruction model.

2.3.2 Genealogy's critique of Habermas's rational reconstruction.

As illustrated previously, Habermas's rational reconstruction involves a conception of rationality that provides the "universal standards" against which different historical moments, and different cultures, can be assessed. This conception of rationality is thus independent of history. His model for the evolution of society, therefore, resembles in some way that of evolution in nature. Society, in this context, evolves as it acquires certain universal competences through a learning process similar to Piaget's problem-solving

model. This process of development is, as a consequence, linear and irreversible.

> [Habermas] model for the evolution of society is reminiscent of the organic individual, with its growth from youth to maturity, such that it seems natural to say that the learning process leads to progress and advance that we cannot imagine wanting to reverse, or to order in any different way (Couzens-Hoy, 1994, p. 156)

If we take this statement as representing Habermas's ideas, there are certain implications that should be taken into account. This model implies an attitude that could be seen as arrogant regarding the relationship between our present and the past, and between our social arrangements and those of other cultures. In this sense, the past would be considered as representing an inferior stage of development. We should also expect other social arrangements to converge with ours, once they have naturally reached a similar level of development. Furthermore, it assumes that, as in nature, there is no reason to imagine being different, nor any possibility to be so.

However, and doing justice to Habermas, he has argued that the evolutionary theory that reconstructs competences should not be used as a universal history since the events that lead to new stages are contingent, and that the existence of different levels should not lead to the judgement of a society as a whole.

> [O]ne society may be superior to another with reference to the level of differentiation of its economic or administrative system, or with reference to technologies and legal institutions. But it does not follow that we are entitled

> to value this society more highly as a whole, as a concrete totality, as a form of life. (Habermas in Dews 1986, p. 169)

As a consequence, the supposed advantages of the evolutionary model become less than clear, since it would share genealogy's criticisms of lacking standards to guide social action, and therefore to challenge the *status quo*.

> Yet Habermas himself admits the inability of theory to bring new forms of life into being, and he suggests that to confuse theory with a Utopian reality is dangerous. Thus, in a recent essay, "The New Obscurity", he remarks in apparent agreement with Foucault that generating forms of life exceeds the capacities of the medium of [political, legal and administrative] power. His own theory could thus be no more effective socially than genealogy, for both can aspire to no more than criticisms of particular [past or present] social arrangements. (Couzens-Hoy, p. 159)

Another issue that is important to consider comes from Habermas's assumption that genealogy fails to understand that social evolution has been the result of learning through problem-solving. However, as Couzens-Hoy (1994) argues, the idea of applying this problem-solving model, which characterises the development of science, to social developments also presents some crucial problems,

> Take for example, legal-problem solving. Judges may be thought to be solving problems created by social change or technological developments, for instance, in cases of civil rights or the medical prolongation of life. While we may consider legal doctrine on civil rights to have evolved, this evolution does not seem irreversible, given change in the make-up of the court or increased tension in social relations. Also, the advance may be mainly in procedural problems, and whether this advance has been connected significantly with substantive equality is questionable. (p. 162)

Finally, some readers, including some systems thinkers such as Flood (1990) and Jackson (1991a), seem to assume that Habermas's "ideal speech situation" represents a model that, although Utopian, should guide social action. Against this interpretation, Habermas (1989) argues that,

> [T]he ideal speech situation is misleading if it seems to suggest a concrete form of life, it would be a utopistic mistake to confuse a highly developed communicative infrastructure of possible forms of life with a specific totality, in the singular, representing the successful life. (p. 59)

The model of the "ideal speech situation" provides the space in which consensus amongst the participants could be achieved through the "unforced force of the better argument". This would require, in principle, to make explicit the background that underpins any point of view. However, the problem of reaching consensus cannot be reduced, as Flood (1990) and Jackson (1991a) seem to suggest, to the provision of certain conditions for the different backgrounds to be made completely clear, because, as Habermas (1987) points out, this background can never be made completely explicit.

Genealogy, in contrast, is always a matter of interpretation. However, this does not mean that genealogy is opposed to social solidarity and consensus *per se*. It simply objects to the elevation of solidarity and consensus to the status of an evolutionary moment in the history of humankind. In this sense, Couzens-Hoy (1994) clarifies the issue when saying,

> Solidarity and community may be the highest achievements of these contingent moments, and they may serve as inspiration for later moments. But they cannot be repeated, and slavish imitation by a later moment may only lead to a reactionary blindness to the new problems that a later moment faces. (p. 202)

In sum, as Couzens-Hoy (1994) concludes,

> These qualifications of [Habermas's] view seem to me to undermine any arguments for the practical superiority of evolutionary theory over critical history. The supposed advantage of rational reconstruction over genealogy disappears when Habermas weakens his claims about what evolutionary theory can really do. (p. 160)

In this context, Foucault's approach to the history of human sciences would represent a more plausible alternative. Genealogy, instead of a reconstruction of solutions to problems, concentrates on how the problems arose in the first place. Since more than one answer could claim to be the best solution, the question is how a problem came to be seen as such, and how particular solutions were proposed instead of others. In this sense, Foucault (1984b) says,

> The work of a history of thought would be to rediscover at the root of these diverse possible solutions the general form of problematization that has made them possible - even in their very opposition; or what has made possible the transformations of the difficulties and obstacles of a practice into a general problem for which one proposes diverse practical solutions. It is problematization that responds to these difficulties, but by doing something quite other than expressing them or manifesting them: in connection with them it develops the conditions in which possible responses

> can be given; it defines the elements that will constitute what the different solutions attempt to respond to. (p. 389)

As a consequence, we could conclude that, although Foucault's genealogy is reconstructive, it does not assume, as does Habermas's model, the necessity of progress, a final convergence, nor even a unique path of development. It simply offers alternative ways of explaining how problems and their possible solutions were assumed as such in the first place.

As we shall see when discussing Foucault's ideas in more detail in the next chapter, he thinks that our present self-understanding is not universal or eternal, but historically created. He does not believe that the ways we assumed ourselves to be in the past are inferior to our present ones, nor that they represent a stage in an evolutionary account, in contrast to how Habermas explains it in his model. He would also suggest that these different self-understandings are just different interpretations that appear in contingent historical moments.

2.4 Conclusion.

In the first part of this chapter, I followed the origins of critical theory as developed by Horkheimer, and later by Horkheimer and Adorno, as a general framework for the analysis of the development of critical history. As part of this I illustrated some of the most important tensions present in their work. In the second part of the chapter, I introduced and contrasted two

possible alternatives, those proposed by Jürgen Habermas and Michel Foucault, not only because they are the main authors that Critical Systems Thinkers have drawn upon, but also because they are amongst the most influential writers in modern philosophy today.

However, this is not to say that this analysis is exhaustive, or even fair, since I strongly support Foucault's model. There are no doubt many questions that those supporting Habermas's ideas could reasonably raise against Foucault's model. Furthermore, since I have followed to a large extent the arguments expressed against Habermas by Couzens-Hoy (1994), it seems to me pertinent to quote a statement made by McCarthy (1994) when reviewing Couzens-Hoy's discussion:

> Hoy plays Foucault's genealogical approach off against Habermas's reconstructive approach, much to the latter's disadvantage. His main target there is the theory of social evolution, which makes the encounter less than ideal, as that is not meant to be the *critical* edge of Habermas's enterprise. If one compares genealogical histories written with critical intent to developmental logics set out with reconstructive intent, and does so from the standpoint of critique, then the outcome is largely preceded. (p. 224)

Again, the only point that could be added, if we try to be honest in our approach, is that the question is not which approach is right, but which one is more useful and for what purposes. In this sense, I have contrasted Habermas's ideas against Foucault's genealogy only in order to highlight some aspects of the latter's work, as a preamble to the next chapter in which Foucault's ideas will be discussed in depth.

Chapter 3: Michel Foucault and the "Critical Ontology of Ourselves".

3.1 Introduction.

After the general introduction to Foucault's work provided in Chapters 1 and 2, a more detailed account of his ideas will be given in this chapter. In the first part, the interpretation that Foucault makes of Kant's concept of enlightenment will be used as a point of departure, and as a framework to understanding what philosophy means for Foucault.

Foucault's project, "the critical ontology of ourselves", will then be discussed, in the context of Foucault's general method of analysis - what Dreyfus and Rabinow (1982) call "interpretive analytics" - and its main components: archaeology and genealogy. In this context, the concept of "space of experience" will be introduced, as the three-dimensional framework providing the necessary tools for the analysis of any historical experience (problematisation).

Next, Foucault's understanding of power will be discussed, leading towards the application of these ideas to the analysis of institutions. Finally, Foucault's notion of *dispositif* will be introduced, after which concluding remarks will be made. I shall then be in a position to explain the general framework that will be applied in this thesis.

3.2 "What Is Enlightenment?"

Foucault believes that modernity started with Kant's attempt to make reason critical.[58] He devotes one of his most illuminating articles, "What is enlightenment?" (1984a), to establishing the connections between his work and Kant's, and to explaining how his work has developed in a way different from those of other schools of thought, such as the Frankfurt School. He assumes modern philosophy to be "the philosophy that is attempting to answer the question raised so imprudently two centuries ago: Was ist Aufklärung?" ("What is Enlightenment?"), referring to an article written by Kant in 1784.

What is relevant for Foucault (1984a) is that Kant's article represents the first time that philosophy is not "seeking to understand the present on the basis of a totality or a future achievement" (p. 34), but as an attempt to understand and study a historical experience. Before Kant's reflection, the present had been assumed as belonging to a "certain era of the world", interrogated in an attempt to decipher the signs of a future event, or as a "point of transition" towards a new world. However, Foucault (1984a) argues that Kant understands enlightenment as the exit from

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[58] To understand Kant's influence on Foucault see also Footnote 30.

> [A] certain state of our will that makes us accept someone else's authority to lead us in areas where the use of reason is called for ... when a book takes the place of our understanding, when a spiritual director takes the place of our conscience, when a doctor decides for us what our diet is to be. (p. 34).

As a consequence, the enlightenment calls for the modification of pre-existing relations of authority between human rationality, metaphysics and religion. In this context, Kant's critical rationality is understood in terms of defining the conditions under which the use of reason is legitimate in order to determine what can be known, what must be done, and what may be hoped.

3.3 The "Critical Ontology of Ourselves".

As mentioned above, what is important for Foucault from Kant's reflection is his emphasis on the study of the present as a historical experience. This emphasis is transformed by Foucault into what he calls the "critical ontology of ourselves" (the critique of what we are[59]). Foucault's critical position has two main components: work on ourselves, and responding to one's time.

The first component, work on ourselves, is not only a process of change dictated by tradition or law, but a process of the re-creation of ourselves. To

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[59] As discussed in Chapter 1, "critique" is understood by Foucault as a process of endless demystification of the past and, therefore, of the present.

build up this argument, he analyses Baudelaire's (1964) notion of modernity as a process of the "transformation of one's contingency" in terms of

> [T]he asceticism of the dandy who makes of his body, his behaviour, his feelings and passions, his very existence, a work of art. Modern man, for Baudelaire, is not the man who goes off to discover himself, his secrets and his hidden truth; he is the man who tries to invent himself. This modernity does not "liberate man in his own being"; it compels him to face the task of producing himself. (Foucault, 1984a, p. 42)

The second component, responding to one's time, does not involve an ethics based on the acceptance of universal conditions or a presumed universal human reality; nor, however, does it assume the absence of deep truth (in terms, for example, of Heidegger's groundlessness of our being in the world). It is, rather, an attitude: a voluntary choice of a mode of relating to contemporary society; a way of thinking and feeling, acting and behaving; a philosophical ethos. This ethos can be understood as follows:

Firstly, it is a refusal of everything that could be presented as a simplistic or authoritarian alternative. This means that it is necessary to make historical enquiries oriented towards the discovery of what is not, or is no longer, indispensable for the constitution of ourselves as autonomous subjects, assuming that we are, to a certain extent, historically determined (p. 43).

Secondly, that enlightenment is completely different from humanism: "enlightenment is an event, or a set or events and complex historical processes, that is located at a certain point in the development of European

societies" (p. 43). Humanism is a theme, or themes, tied to value judgements.

Thirdly, it is a limit-attitude. This means that since Foucault is not trying to construct a general theory, the critical ontology of ourselves consists of analysing and reflecting upon the limits that are imposed on us. It also involves experimenting with the possibility of going beyond them, even though, as he insists, we cannot assume that we can gain access to a complete or definite knowledge of our historical limits (p. 45).

As a consequence, Foucault emphasises, on the one hand, "the extent to which a type of philosophical interrogation...is rooted in the enlightenment". Furthermore, on the other hand,

> [T]hat the thread that may connect us with the enlightenment is not faithfulness to doctrinal elements, but rather a permanent reactivation of an attitude; that is, of a philosophical ethos that could be described as a permanent critique of our era. (p. 42).

From this understanding, it is possible to introduce Foucault's general method of analysis. This will be done in the following section.

3.4 Foucault's Method: "Interpretive Analytics".

Foucault's general method, which Dreyfus and Rabinow (1982) call "interpretive analytics", combines both "archaeological" and "genealogical" dimensions:

As mentioned in Chapter 1, the archaeological dimension was developed in Foucault's earlier books such as *Madness and Civilisation, Birth of the Clinic and The Archaeology of Knowledge.*[60] Later on, in writings such as *Discipline and Punish* and *The History of Sexuality*, and due to some theoretical problems found in his method,[61] he developed a genealogical dimension of his method of historical analysis focused on the role of power relations in contemporary society. In this sense, genealogy becomes the dominant

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[60] Foucault "proposes to treat the discourses of the human sciences archaeologically, that is, to avoid becoming involved in arguments about whether what they say is true, or even whether their statements make sense. Rather he proposes to treat all that is said in the human sciences as a "discourse-object". Foucault makes clear that his archaeological method, since it must remain neutral as to the truth and meaning of the discursive systems it studies, is not another theory about the relation of words and things". (Dreyfus and Rabinow, 1982, p. xx).

[61] For a very detailed discussion see Dreyfus and Rabinow (1982), Chapter 4: "The Methodological Failure of Archaeology".

dimension of his method of historical analysis while archaeology, as a technique, serves it.[62]

The first one involves an archaeological analysis which preserves the distancing effect of structuralism. However, it assumes that even though we must start analysing the shared cultural practices that have shaped what we are, it does not imply that we are seeking to identify universal structures for knowledge or moral action, but to illuminate the conditions that justify and make possible such practices (Dreyfus and Rabinow, 1982, p. viii).

Genealogy, on the other hand, as Davidson (1986) remarks, "concentrates on the forces and relations of power connected to discursive practices.... it shows rather that the origin of what we take to be rational, the bearer of truth, is rooted in domination, subjugation, the relationship of forces - in a word, power" (p. 225).

In *Discipline and Punish* (1977a), Foucault points out the particular connection between the present and history, and between an understanding of the past and our present situation that characterises his method. When

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[62] "After the *Archaeology* he turns sharply away from the attempt to develop a theory of discourse, and uses Nietzsche's genealogy as a starting point for developing a method that would allow him to thematize the relationship between truth, theory, and values and the social institutions and practices in which they emerge. This leads him to pay increasing attention to power and the body in their relation to the human sciences. The archaeological method is not rejected, however... As a technique, archaeology serves genealogy... This, in

explaining the reason why he is interested in the history of the prison he says, "Simply because I am interested in the past? No. If one means by that writing a history of the past in terms of the present. Yes, if one means writing a history of the present" (Foucault, 1984a, p. 31). It is possible to introduce the main elements of his genealogical method, according to Hiley (1984), as follows:

Firstly, since one is necessarily writing the history of the present from within, "genealogy can provide no outside standpoint or meta-story about that history from which to judge what is better or worse, or historical gain or loss" (p. 196).

Secondly, even though Foucault sometimes assumes the possibility of different forms of power in the future, there is no evidence that he holds out much hope for its elimination. "It is the present, not the future, that Foucault wants to see" (p. 196). In relation to this particular point, Sheridan (1980), says:

> Foucault begins where all truly original minds begin, in the present. Such minds are not ahead of their times; it is the rest of us who are dragging our feet. His passion is to seek out the new, that which is coming to birth in the present, a present that most of us are unable to see because we see it through the eyes of the past, or through the eyes of a "future" that is a projection of the past. (p. 195)

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turn, enables Foucault to raise the genealogical questions: How are these discourses used? What role do they play in society?" (Dreyfus and Rabinow, 1982, p. xxi).

Thirdly, genealogy is not arbitrarily situated. It is not arbitrary that the prison is studied. It is studied because, as Foucault (1977b) says, in the prison "for once, power does not hide or mask itself" – see Figure 1.1. As with the genealogy of a family, "the lines one traces are not neutrally selected, nor are they arbitrarily selected" (Hiley, 1984, p. 197).

Finally, it can be said, following Hiley (1984), that

> [S]ince the genealogy of power is self-consciously written in the present and situated in the danger it seeks to see, it is not value-free, if by value-free one means that it is neutral and unengaged. But also, because it is necessarily caught in the present, it is not normative, if by normative one means having criteria or a meta-story to tell the better from worse, legitimate from illegitimate exercise of power...(p. 197)

After this general description of Foucault's genealogical method, let us take a brief look at the main elements that constitute the framework of the analysis of any historical experience.

3.5 The "Space of Experience".

In his last books, Foucault explains that the critical ontology of ourselves (the critique of what we are) must be carried out through the analysis of particular historical experiences defined within three dimensions (axes). These dimensions are: "knowledge", "power" and "self". See Figure 3.1.

In the context of his studies on sexuality, Foucault (1985) explains the relationship between these axes as follows:

> [T]o speak of "sexuality" as a *historically singular experience* also presupposed the availability of tools capable of *analysing the peculiar characteristics and interactions of the three axes that constitute it*: (1) the formation of sciences (savoirs) that refer to it, (2) the systems of power that regulate its practice, (3) the forms within which individuals are able, are obliged, to recognise themselves as subjects of this sexuality. Now, as to the first two points, the work I have undertaken previously - having to do first with medicine and psychiatry, and then with punitive power and disciplinary practices - provided me with the tools I needed. (p. 4-7, italics added)

This three-dimensional characterisation of experience was developed through the main theoretical shifts in the focus of his work. These shifts are described by Foucault in the introduction to *The History of Sexuality vol. 2*, under the title "modifications", as follows: the first theoretical shift was necessary

> In order to analyse what was often designated as the advancement of learning; it led me to examine the forms of discursive practices that articulated the human sciences...studying of the games of truth (*jeux de verité*) in their interplay with one another, as exemplified by certain empirical sciences in the seventeenth and eighteenth centuries...In sum, the analysis of discursive practices that made it possible to trace the transformation of disciplines (*savoirs*) while escaping the dilemma of science versus ideology. (p. 6)

Rabinow (1984) calls the mode for transforming individuals into objectified subjects "scientific classification". He points out that, in *The Order of Things* (1970), Foucault shows

> How the discourses of life, labour, and language were structured into disciplines; how in this manner they achieved a high degree of internal autonomy and coherence; and how these disciplines of life, labour, and language which we tend to view as dealing with universals of human social life and as therefore progressing logically and refining themselves in the course of history (as in the natural sciences) changed abruptly at several junctures, displaying a conceptual discontinuity from the disciplines that had immediately preceded them. (p. 9)

The main examples given by Foucault are

> [T]he objectivizing of the speaking subject in *grammaire générale*, philology, and linguistics...the objectivizing of the productive subject, the subject who labours, in the analysis of wealth and of economics...the objectivizing of the sheer fact of being alive in natural history or biology. (Foucault, 1982, p. 208)

The second theoretical shift was also required, as Foucault (1985) explains, in order "to analyse what is often described as the manifestations of "power"; it led me to examine, rather, the manifold relations, the open strategies, and the rational techniques that articulate the exercise of powers" (p. 6). This consisted of studying "their interaction (the games of truth) with power relations, as exemplified by punitive practices" (p. 6). Foucault considered that "the analysis of power relations and their technologies made it possible to view them as open strategies, while escaping the alternative of a power conceived of as domination[63] or exposed as a simulacrum" (p. 5).

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[63] Although Foucault is not always consistent in the way he uses certain words, it could be said that he differentiates between power relations (which may involve some degree of manipulation, require freedom to be exercised, and where therefore resistance is possible), and domination or slavery (which totally determine the subject's actions). The relationship between power relations, domination and freedom is discussed later in this chapter.

This exploration led Foucault to the study of what he calls "dividing practices", i.e., "modes of manipulation that combine the mediation of science (or pseudo-science) and the practice of exclusion usually in a spatial sense, but always on a social one" (Rabinow, 1984, p. 8). Through these practices, "the subject is objectified by a process of division either with himself or with the others" (Foucault, 1982, p. 208).

The main examples of these "dividing practices", as explored in studies like *Madness and Civilisation* (1973), *The Birth of the Clinic* (1975), and *Discipline and Punish* (1977a), are the isolation of the lepers during the middle ages; the attempts to confine the poor, the ill and the vagabonds; the rise of modern psychiatry in institutions like hospitals and prisons; the medicalisation and normalisation of sexual deviance, etc.

It is important to note that "scientific classification" and "dividing practices" are not the same thing, nor are they orchestrated together by some unseen actor. Nevertheless, they both play an important role in any historical experience. As Rabinow (1984) says,

> In *The Birth of the Clinic* Foucault demonstrates how the body was increasingly treated as a thing during the nineteenth century, and how this objectification was paralleled and complemented by the dividing practices instituted in the clinic's spatial, temporal, and social compartmentalisation. (p. 10)

The third theoretical shift was made, according to Foucault (1985), "in order to analyse what is termed "the subject". It seemed appropriate to look for the forms and modalities of the relation to self by which the individual constitutes and recognises himself *qua* subject". After the previous theoretical shifts, Foucault explains,

> I felt obliged to study the games of truth in the relationship of self with self and the forming of oneself as a subject, taking as my domain of reference and field of investigation what might be called the history of desiring man. (p. 6)

Rabinow (1984) calls this mode of objectification "subjectification", which differs from the other two (scientific classification and dividing practices) because, in those instances,

> the person who is put into a cell or whose dossier is being compiled is basically in a passive, constrained position. In contrast, with the third mode, Foucault looks at those processes of self-formation in which the person is active...this self-formation has a long and complicated genealogy; it takes place through a variety of operations on (people's) own bodies, on their own souls, on their own thoughts, on their own conduct. These operations characteristically entail a process of self-understanding but one which is mediated by an external authority figure, be he confessor or psychoanalyst. (p. 11)

The interaction of these "axes" constitute what Dávila (1993) calls the "space of experience". In sum, this "space of experience", as represented in Figure 3.1, contains the "particular historical experiences" to be studied, with the main examples being madness, illness, criminality and sexuality. In this

context, Foucault (1984a) argues that the historical ontology of ourselves has to address the question

> How are we constituted as subjects of our own knowledge?, How are we constituted as subjects who exercise or submit to power relations?, How are we constituted as moral subjects of our own actions? (Foucault, 1984a, p. 49)

Using this framework, it is possible to summarise the general goal of Foucault's work:[64]

> to create a history of the different modes by which, in our culture, human beings are made subjects (p. 208)....subjects to someone else by control or dependence, and tied to his own identity by a conscience or self-knowledge. Both meanings suggest a form of power which subjugates and makes subject to. (Foucault, 1982, p. 212)

Having raised the issue of power, let us discuss this aspect of Foucault's work in more detail.

3.6 Foucault's notion of power.

Foucault's notion of power represents his most important intellectual contribution - and also the most widely contested. It constitutes an abstraction that can be made from his analyses of different conceptions of power, such as those related to prisons or sexuality. Basically, it helps us to understand how it is possible to differentiate two general models or

conceptions of power: the "juridico-discoursive" and the "micro-physical" models.

The development of the juridico-discoursive model is related to the creation of the institutions of the modern State. It represents the dominant discourse about power which has been formed, within the processes institutionalisation, through the interplay between political power and different systems of micro-techniques or "disciplines".

When analysing this model Foucault distinguishes two dimensions: the first can be considered as a "negative" and "egalitarian" dimension where power is reduced to prohibition. The role of this dimension is to mask the other, that might be seen as "productive" and "asymmetric", and which promotes particular forms of action through the operation of different systems of micro-techniques. In this way power is able to mask a substantial part of itself.

> Historically the process by which the bourgeoisie became in the course of the eighteenth century the politically dominant class was masked by the establishment of an explicit, coded, and formally egalitarian juridical framework, made possible by the organisation of a parliamentary, representative regime. But the development and generalisation of disciplinary mechanisms constituted the other, dark side of these processes. The general juridical form that guaranteed a system of rights

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[64] See also Footnote 34.

> that were egalitarian in principle was supported by these tiny, everyday, physical mechanisms, by all those systems of micropower that are essentially non egalitarian and asymmetric that we call the disciplines. And although...the representative regime makes it possible...for the will of all to form the fundamental authority of sovereignty, the disciplines provide, at the base, a guarantee of the submission of forces and bodies. The real, corporeal disciplines constituted the foundation of the formal, juridical liberties. (Foucault, 1977a, p. 222)

These micro-techniques constitute Foucault's second general model or conception of power, i.e., the "micro-physics of power". To summarise, this model attempts to explain how human behaviour is governed through the interaction of human actions, emphasising the discoursive interplay between "techniques" developed for a rational definition of the behaviour of individuals, and "strategies" put into operation by actors in social relations.

In this context, if power relations are defined as "a way in which certain actions may structure the field of other possible actions" (Foucault, 1982, p. 222), they must be deeply rooted in the social fabric without conforming to any kind of structure "above" or "outside" society. Furthermore, since "to live in society is to live in such a way that action upon other actions is possible and in fact ongoing ... [a] society without power relations can only be an abstraction" (Foucault, 1982, p. 223).

We can now explain more clearly the relationship between these two general models: while the juridico-discoursive model masks the micro-physics of

power, the latter (through its interaction with political power) produces the former.

At this point it is important to stress that, even though power relations determine the conduct of individuals by producing the possibilities for action (either individual or collective), this does not mean that they determine it exhaustively. That is to say, there is always something that escapes their influence. This statement lead us to the discussion of an element implicit in power relations: freedom.

Freedom[65] and power relations are mutually exclusive. However, freedom is required for power to be exercised, and at the same time, freedom cannot be completely annihilated otherwise power relations would be transformed into slavery. As a consequence, there is always the possibility of resistance since the relationship between power and freedom is more an eternal struggle than a direct confrontation.

> The relationship between power and freedom's refusal to submit cannot therefore be separated. The crucial problem of power is not that of voluntary servitude (how could we seek to be slaves?). At the very heart of the power relationship, and constantly provoking it, are the recalcitrance of the will and the intransigence of freedom. Rather than speaking of an essential freedom, it would be better to speak of an agonism -of a

[65] Freedom is understood as the domain from where resistance, criticism, and social action are possible.

> relationship which is at the same time reciprocal incitation and struggle; less of a face-to-face confrontation which paralyses both sides than a permanent provocation. (Foucault, 1982, p. 221)

The "struggle" between freedom and power relations, and more importantly, the fact that despite the *ubiquitous* presence of systems of normalisation there is always something that remains outside them, are necessary concepts in order to allow for any possibility of criticism, resistance, and therefore social action. As Couzens-Hoy (1986) explains,

> As someone who rejects holism and the ideal of totalisation, Foucault probably also believes that it does not even make sense to speak of society as entirely normalised, since there is no theoretical standpoint from which this claim could be defensively asserted. He knows full well that his dissenting voice is a counterexample to his own suggestion that the entire social body has become subjected to carceral techniques and normalising tendencies. He believes that the resistance to social developments can come only from within society and from those places that have not been fully co-opted. His point is therefore that if, counterfactually, it could be said that the social normalisation were total, then there would be no grounds for social criticism. There would be no way that the members of such a society could see themselves any differently from the way they were. (p.14)

Recognising the importance of power relations amongst individuals, however, must not lead us to believe that Foucault reduces all human relationships to power relations. Furthermore, when looking at the complexity of human relationships, Foucault makes a *logical* distinction in order to facilitate their analysis. Firstly, he distinguishes the relationships that are characterised by the technical capacities of individuals to transform, modify, use or destroy things. Secondly, he distinguishes relationships of

communication. Finally, he looks at the relationships that are intended to modify or govern the actions of others: this latter kind of relationship corresponds to the micro-techniques that constitute this micro-physical model.[66]

It is important to highlight here that this logical distinction between technical capacities, relations of communication, and power relations, does not imply that these relationships represent separate domains. On the contrary, as Foucault (1983) says, they can barely be distinguished from each other:

> The application of objective capacities in their most elementary forms implies relationships of communication (whether in the form of previously acquired information or of shared work); it is tied also to power relations (whether they consist of obligatory tasks, of gestures imposed by tradition or apprenticeship, of subdivisions and the more or less obligatory distribution of labour). Relationships of communication imply finalised activities (even if only they correct putting into operation of elements of meaning) and, by virtue of the modifying the field of information between partners, produce effects of power. They can scarcely be dissociated from activities brought to their final term, be they those which permit the exercise of this power (such as training techniques, processes of domination, the means by which obedience is obtained) or those which in order to develop their potential call upon relations of power (the division of labour and the hierarchy of tasks). (Foucault, 1982, p. 218).

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[66] "When Habermas distinguishes between domination, communication, and finalised activity, I do not think that he sees in them three separate domains, but rather three transcendentals." (Foucault, 1982, p. 218)

Having acknowledged that power relations as a mode of actions upon other actions are present at the core of human relations, and that they constantly interact with relations of communication and technical capacities, we must realise that it is possible to find in society some "blocks" in which they are co-ordinated according to particular "formulae". These blocks constitute what Foucault has called before "systems of micro-techniques" or "disciplines".

> But there are also "blocks" in which the adjustment of abilities, the resources of communication, and the power relations constitute regulated and concerted systems. Take for example an educational institution: the disposal of the space, the meticulous regulations which govern its internal life, the different activities which are organised there, the diverse persons who live there or meet one another, each with his own function, his well-defined character - all these things constitute a block of capacity-communication-power. The activity which ensures apprenticeship and the acquisition of aptitudes or types of behaviour is developed by means of a whole ensemble of regulated communication... and by a whole series of power processes (enclosure, surveillance, reward and punishment, the pyramidal hierarchy). (Foucault, 1982, p.218)

The existence of these "blocks" (that Foucault also identifies in prisons, barracks, factories and hospitals), explains why he assumes that institutions are so important for the observation of power relations.

> I wish to suggest that one must analyse institutions from the standpoint of power relations, rather than vice versa, and that the fundamental point of anchorage of the relationships, even if they are embodied and crystallised in an institution, is to be found outside the institution. (Foucault, 1982, p. 222)

To summarise, institutions represent the ideal environments for the observation of power relations - not because power relations are more obviously "present" inside than outside them, nor because they are confined to them nor originated within them. Rather, it is because, within institutions, power relations (with technical capacities, and relations of communication) crystallise in a particular, and to some extent "tangible" way, which allow for their observation – see Figure 1.1. Furthermore, we must emphasise that these relations are "grounded" within institutions as part of a wider process of institutionalisation in society.

Finally, and within this framework, we can ask, what does Foucault mean by saying that power relations are anchored "outside" institutions? The answer is that the "outside" is only a figurative expression. It means that there are not really institutions as such, but processes of institutionalisation.

A final point remains. If institutions represent such important places to study the processes of institutionalisation, how should one conduct the analysis of institutions? An answer to this question will be attempted in the next section.

3.7 The analysis of institutions.

As was previously illustrated, Foucault's conception of power has two dimensions: the juridical and the micro-physical. It was also explained that the juridical dimension, which is the dominant discourse about power, masks

the micro-physical dimension, which has produced it. Furthermore, Foucault's model of human interaction explains this in terms of the interplay between technical capacities, relations of communication, and power relations.

When applying this model to a particular institution, the juridical dimension would be seen as the set of regulations, explicit and tacit, and the formal arrangement - apparatus - that visibly forms that institution. The relationship between the individuals would be understood in terms of Foucault's model of human interaction, in which power relations (the micro-physical dimension) have an important role to play.

In order to uncover the micro-physical dimension, Foucault analyses the role of dominant discourses over time. Through this historical investigation, it should be possible to understand the development of the different discourses which gave rise to, and continuously transform, any particular institution.

For example, in his study of prisons, Foucault was able to expand the analysis of an institution (the prison) to the process of institutionalisation. It was through "expanding" his studies about prisons that he could say that institutions "constitute what one might call, enlarging a little the sense of the

word, disciplines" (Foucault, 1982, p. 219).[67] In fact, the outcome of Foucault's analysis of institutions is more an explanation of a historical process of disciplining in society rather than a description of the functioning of a particular institution.

> What is to be understood by the disciplining of societies in Europe since the eighteenth century is ... that an increasingly better invigilated process of adjustment has been sought after -more and more rational and economic- between productive activities, resources of communication and the play of power relations. (Foucault, 1982, p. 219).

From this discussion, let us try to summarise two aspects of paramount importance: firstly, that Foucault's analysis of a particular institution allows us to understand the historical development of the discourse that by "crystallising" the process of institutionalisation according to a particular "formula", produced that institution.

Secondly, Foucault was able to illustrate how, when the dominant discourse within an institution faces struggles against the forms of normalisation it promotes, or when serious criticisms are raised because of its apparent failure, it calls for a "reform". Through the "reform" process, the dominant discourse will try to preserve the particular arrangement which organises the relations amongst individuals within that institution. In order to illustrate this point Foucault (1977a) highlights that:

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[67] See Foucault's definition of power relations in Footnote 32.

> It should be noted that this monotonous critique of the prison always takes one of two directions: either that the prison was insufficiently corrective, and that the penitentiary technique was still at a rudimentary stage; or that in attempting to be corrective it lost its power as punishment, that the true penitentiary technique was rigour, and that prison was a double economic error: directly, by its intrinsic cost and, indirectly, by the cost of the delinquency that it did not abolish. The answer to these criticisms was invariably the same: the reintroduction of the invariable principles of penitentiary technique. For a century and a half the prison has always been offered as its own remedy: the reactivation of the penitentiary technique as the only means of overcoming their perpetual failure; the realisation of the corrective project as the only method of overcoming the impossibility of implementing it... the reintroduction, under the disguise of a new reform, of the same penitentiary principles of which such wonderful results are still expected today... (p. 268).

Up to this point we have discussed the importance of institutions for the study of power relations. It has also been illustrated how the analysis of a particular institution can be undertaken. Furthermore, it has been demonstrated that it is the process of institutionalisation in a particular historical setting, and not the study of particular institutions, which Foucault is after. From these issues one question emerges: Is there anything other than institutions worth examining?

To answer this question, it is necessary to introduce a final concept: the concept of *dispositif.*

3.7.1 The concept of *dispositif.*

The concept of *dispositif* gathers under its banner not only institutions, but also the different bodies of knowledge and forms of self-understanding that are not exclusively confined to particular institutions.[68] That is to say, it includes the totality of institutions and what lies beyond them. In other words, what Foucault wants to encapsulate with this concept is the irregular, heterogeneous ensemble of discourses, institutions, architectural arrangements, regulations, law, administrative measures, scientific statements - in short, the said as much as the unsaid.[69]

The concept of *dispositif* has a two-fold methodological role in the analysis of institutions. Firstly, from the endless variety of elements (for example, those quoted above) that constitute a particular historical moment, it is possible to select a few to generate a domain of human experience upon which we can focus our studies. For example, the scientific discourse about madness and the institutional practices in hospitals are the initial elements used by Foucault to determine a domain of human experience that he analyses as a *dispositif.*

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[68] The concept of *dispositif* was introduced in Section 1.1.2.1, p. 18.

[69] As already quoted on Page 18.

Secondly, the goal of the research should be to decipher this *dispositif* as it exists in a particular historical moment: that is, how the practices that organise and govern human actions in relation to a particular human experience (e.g., madness) are structured. For example, Foucault's study of madness is not intended merely to identify a set of institutional practices and a scientific discourse, but rather to explore how this human experience is organised in a particular historical moment, and how the characterisation of this human experience changes over time.

As a consequence, Foucault's historical investigation is intended to explore the transformation in the description of a particular domain of human experience - as far as this domain of human experience is perceived as problematic. For instance, it is possible to see how an institution, in a particular epoch, is responsible for the prescription of certain social practices that determine what is, and what is not, allowed regarding a particular human experience.

It has been claimed above that the human experience under investigation must be perceived as a problem, to which the institution is simply part of its answer. The other elements that constitute the way the problem is defined can be found outside the institution. As Foucault explains:

> Problematisation does not mean representation of a pre-existing object, nor the creation by discourse of an object that does not exist. It is the totality of discursive or non-discursive practices that introduces something into the

> play of true and false and constitutes it as an object for thought (whether in the form of moral reflection, scientific knowledge, political analysis, etc.) (Foucault, 1990, p. 257)

More explicitly, in relation to the problematisation of madness Foucault (1990) says that the question was how and why, at a given moment, madness was problematised through a certain institutional practice and a certain apparatus of knowledge.[70]

To summarise, we have seen that Foucault's analysis of institutions is not limited to describing the process of institutionalisation as the "crystallisation" of games of communication, technical capacities, and power relations. It also attempts to uncover the formation processes of the *dispositif*: i.e., the irregular and heterogeneous body of practices and discourses that are developed to define and give answer to a particular problematisation – see Figure 1.1. The role of institutions is, then, to contribute to the ordering (governance) of some of these practices and discourses at a particular historical moment.

I have also highlighted that the perception of any human experience, to which the institution makes reference, changes according to different historical settings. In this context, I will attempt to discuss, finally, how it is

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[70] As quoted on Footnote 33.

possible to formulate an investigation of a particular domain of human experience in terms of what, at a given moment, is perceived as a problem.

As explained earlier, a space of experience is constituted by the interplay between power relations, relations mediated by a bodies of knowledge, and relations of self-recognition (see Figure 3.1). As a consequence, to assume that a particular domain of experience is currently presented as a problem, and then to research this in a Foucauldian manner, means to attempt to understand it by asking the questions first posed above (p.93):

> How are we constituted as subjects of our own knowledge?, How are we constituted as subjects who exercise or submit to power relations?, How are we constituted as moral subjects of our own actions? (Foucault, 1984a, p. 49)

In other words, how we have been constituted as subjects of a body of knowledge that makes explicit reference to a domain of our present experience; how we have been constituted as subjects that exercise or submit to certain power relations that are immanent in that domain of experience; and finally, how we have constituted ourselves so that we can morally recognise ourselves in actions that are proper to that domain of experience.

This kind of investigation is intrinsically critical, if by "critical" we mean an attempt to unearth a historical development that can help us to understand how we became what we are. In other words, this kind of investigation is not

looking for the limits of what is possible, but rather it is an interpretation of how our limits have been, and still remain, possible.

With these last paragraphs, we have arrived back to the statements made at the end of the section devoted to explaining the "space of experience" (p. 93). In this way, I have illustrated how my understanding of "Foucault's notion of power" and "the analysis of institutions" is consistent with that of his critical project. This three-dimensional characterisation of any historical experience or "space of experience" (illustrated in Figure 3.1) will constitute the general framework of analysis that will be used in this thesis.

3.8 Final Remark.

A final consideration in presenting Foucault's work is related to its implications for social practice, i.e., what can Foucault offer? as has been noted before, Foucault (1984a) says that the work on the limits of ourselves must,

> On the one hand, open up a realm of historical enquiry and, on the other hand, put itself to the test of reality, of contemporary reality, both to grasp the points where change is possible and desirable, and to determine the precise form this change should take. (p. 46)

He also states, however, that

> to speak of the "whole of society" apart from the only form it has ever taken is to transform our past into a dream...I believe that this is asking a great

> deal, that it means imposing impossible conditions on our actions because this notion functions in a manner that prohibits the actualisation, success and perpetuation of those projects. "The whole of society" is precisely that which should not be considered except as something to be destroyed. And then, we can only hope that it will never exist again. (Foucault, 1977c, p. 233)

Besides these already controversial ideas, when Foucault was asked whether his work on Greek ethics might offer a basis for an alternative to modernity, he replied:

> No! I am not looking for an alternative; you can't find the solution of a problem in the solution of another problem raised at another moment by other people. You see, what I want to do is not the history of *solutions*, and that's the reason why I don't accept the word "alternative". I would like to do the genealogy of *problems*, of *problematiques*. My point is not that everything is bad but that everything is *dangerous*, then we always have something to do. So my position leads not to apathy but to a hyper- and pessimistic activism. I think that the ethico-political choice we have to make every day is to determine which is the main danger. (quoted in Hiley, 1984, p. 205)

On the basis of these ideas, some of his critics have emphasised, as Hiley (1984) points out, "the cynical and pessimistic side" of his genealogy, "passing off Foucault's political activism as radical chic". In this regard, Rorty (1984) says:

> There is no "we" to be found in Foucault's writing ... it is this remoteness which reminds one of the conservative who pours cold water on hopes of reform, who affects to look at problems of his fellow citizens with the eye of the future historian. Writing "the history of the present", rather than suggestions about how our children might inhabit a better world (p. 18)

This statement implies a liberal hope that current struggles should be directed by a sense of community and a vision of a better future. According to Hiley (1984), there are two forms of resistance that could be consistent with Foucault's analysis:

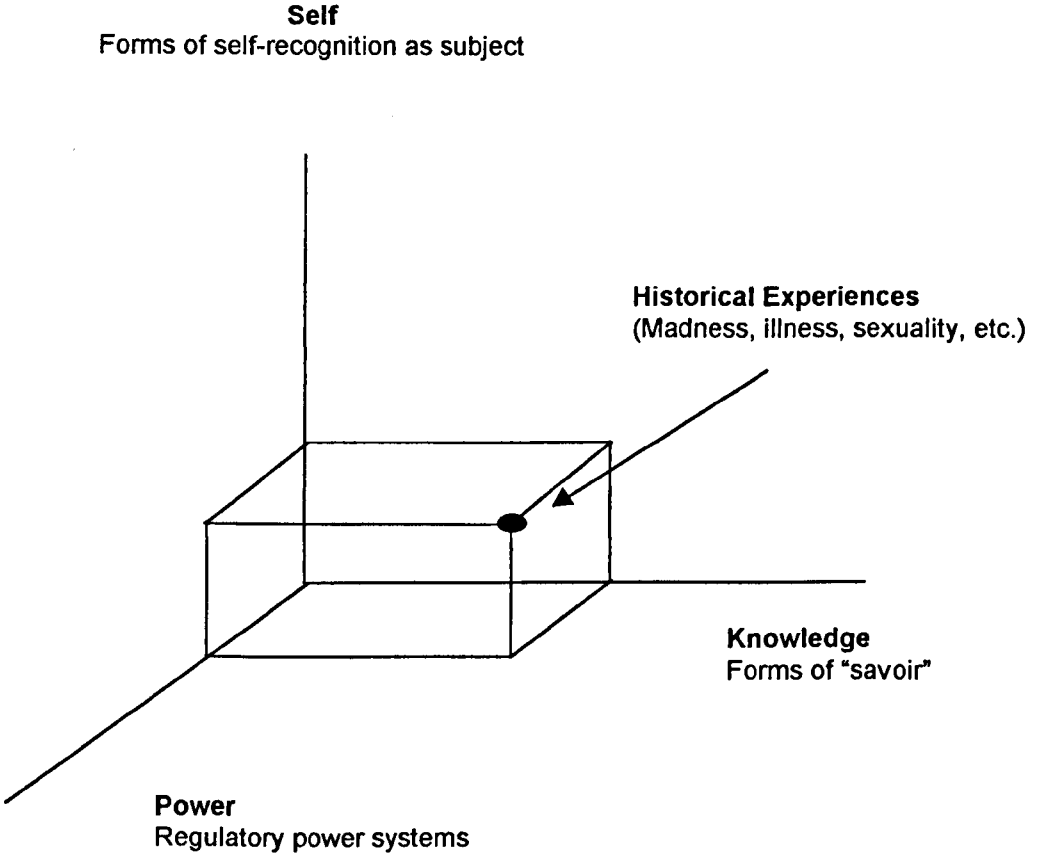
> Since everything is dangerous and we always have something to do, action could take the form of local resistance and particular struggles - prison reform, feminist movements, resistance to the prosecution of homosexuals, and so on. But it is only by a peculiar form of anarchism which must resist a decentralized power at many points that local resistance can avoid recolonization. There is, however, another form of resistance which is not in terms of local struggle, but through withdrawal ... with developing an aesthetic of experience and making one's life a work of art. While the idea that political action must remain at the level of fragmented and local resistance to normalization frustrates liberal's and Marxist's hopes for emancipation, the idea of political resistance through withdrawal can only perplex us all. (p. 206)

Another alternative could become available, however, if we assume that, due to his death at a relatively young age, the work of Foucault was not completed. We could say that important question of how, and on which grounds, meaningful social action could take place remains unsolved. In this respect, Dreyfus and Rabinow (1986) note the following,

> As Foucault showed us in has last books and in his life, *there is a kind of ethical and intellectual integrity* which, while vigorously opposing justifications of one's actions in terms of religion, law, science or philosophical grounding, nonetheless seeks to produce a new ethical form of life which foregrounds imagination, lucidity, humour, disciplined thought and practical wisdom. (p. 121; my italics)

Perhaps it is this insight which can provide the inspiration for new work on Foucault's project of the "critical ontology of ourselves".

Figure 3.1 The Space of Experience.



A three dimensional framework for the study of any historical experience -problematisation. Adapted from Dávila (1993).

Chapter 4: A Foucauldian Review of Management Sciences.

4.1 Introduction.

In the previous chapter a general description of Foucault's framework of analysis was undertaken. At the core of that framework lies the notion of dispositif. The dispositif is a logical construction, that is to say, it is a mental device that gathers all the elements that have been created to define a particular aspect of human experience as a problem. It contains institutions, power relations, bodies of knowledge, codes of practice, architectural arrangements, etc. In Foucault's words, it contains "the said as much as the unsaid"[71] - see Figure 1.1. This implies that it is impossible fully to explore the dispositif, as it is impossible fully to understand our present.

It has also been discussed that certain elements of the dispositif (e.g., power relations, norms, spatial arrangements, and official discourses), can be seen when they are crystallised within certain institutions. Within a specific institution, these elements are crystallised (organised) according to a unique formula. This formula is what Foucault calls a "discipline". This crystallisation allows us to study them, and it explains the important role of institutions in

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[71] Foucault ,1980, p. 194.

Foucault's studies. The historical analysis of the interplay of some of these elements, and their role in the ongoing production of the present, is conducted within the three-dimensional framework introduced in the last chapter - see Figure 3.1.

The process of selection of certain elements of the dispositif to conduct a critical inquiry is to some extent an arbitrary process.[72] It is the product of historical circumstances and particular research interests. In my opinion, this is why certain historians and philosophers could not agree with Foucault's books, and especially with the material selected for his historical analyses. For them, the fact that Foucault did not claim any superiority for his historical accounts over other forms of historiography was not sufficient enough.[73] As a consequence, I expect the reader to think of many other elements that according to his/her own research interests could have been included, or that s/he would consider more relevant. I shall try to highlight some of them, where I find it appropriate, as topics for further research.

As discussed in Chapter 1, the general problematisation that will frame my critical history of the origins of CST is the "productive subject". Under this general banner I include the techniques that have been produced since early

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[72] As has been discussed in Chapters 1 and 3, Foucault understands critique as a process of endless demystification of what we take for granted in our present.

industrialisation to produce "docile subjects" (techniques that overlap and reinforce each other, instead of the most recent techniques replacing previous ones). By "docile subjects" I understand individuals who freely and democratically adopt certain behaviours and attitudes, which reflect their own interests and needs, that "coincidentally" correspond to corporate policies. Following Foucault, I argue that this process is different from domination, or false consciousness, for several reasons. First, it is not the case that certain actors impose their interests upon others. On the contrary, these techniques are produced with the participation of workers and management alike, simultaneously transforming all those involved, although to a different degree and in different forms. Second, it does not assume the existence of some sort of unhistorical human nature and human interests that could be rescued through a process of ideology-critique. If we were to talk of human nature, it would be in terms of some interests and needs that are endlessly produced and re-produced by historical processes.

Within this problematisation, I shall focus on the relationship between CST and the Management Sciences. I shall also assume that the working organisation constitutes the domain in which the discourses and practices of these two elements are crystallised - see Figure 1.2. In terms of the power relations promoted in the inside of the working organisation, the role of CST

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[73] See Geertz's comparison of Foucault's writings with an Escher's drawing quoted in Chapter 1 (See Footnote 7).

and the management sciences has been to mask those aspects of the former that are not socially acceptable. The process of masking power relations in the work place involves changes in the bodies of knowledge, power relations, and workers' self-understanding that shape organisational life. All these changes also try to harmonise the factory floor with wider arenas of society. Regarding the relationship between these elements, I shall suggest that despite CST's claims of being critical of management theory and practice, its main role can be seen as reinforcing current managerial techniques.

As discussed in Chapter 1, I shall draw extensively on the respective works of W. Hollway and N. Rose. Some of the main reasons for this selection were provided in that chapter. Hollway and Rose focused their research on the analysis of some of the most important theories in management. As a consequence, I found quoted many of the themes I had studied in the courses in management sciences, particularly in Organisational Behaviour, that I had taken as part of my undergraduate and postgraduate studies. Furthermore, the fact that Hollway gives great emphasis to the ideas developed in the UK is highly advantageous for this thesis. This is because when looking at the origins of CST I shall focus on Operational Research and Soft Systems as these are understood and practised in the UK. Whenever possible, I traced many of the references taken from Hollway and from Rose to their original sources to see if I could agree with their interpretation. Regarding the ideas of the better-known management gurus

such as Taylor and Mayo, or some very well known statements, this process was very simple (in certain cases their quotes coincided with previous research notes I had taken when looking at books on Organisational Behaviour). With some other authors and certain materials that they found in diverse archives all over the UK, this was not possible. In any case, I shall acknowledge to Hollway and Rose any reference that can be found in their books, whether a well-known statement or a quote from a private archive.

As with this thesis, the importance of Hollway's and Rose's books does not depend on whether or not they included every management guru, or the most important ones. The importance of their work rests on their ability to link certain themes to shed light on certain issues that have not been considered previously, and to help us look at current managerial techniques differently.

However, as has been discussed before, further than simply relating Hollway's and Rose's work, I shall try to combine and complement them for the benefit of this research.[74] Let me expand on this issue somewhat.

First, I shall adapt their work to the general framework of analysis presented in previous chapters. It is important to highlight that neither Hollway nor Rose gives a clear explanation of their understanding of Foucault's work, or

of the theoretical framework used, nor the way certain material was selected. Furthermore, there is no reference to important notions such as the dispositif, the two-fold characterisation of his concept of power, or in general, of Foucault's critical project. They even make very few direct references to his ideas. In this sense, it could be argued that I would try to provide an explanation of how their work could be seen as inspired by Foucault's. This could be very helpful for conducting further research on Organisational Behaviour while focusing on issues or theories not covered by these authors.

Secondly, although they skilfully relate the development of managerial knowledge during this century, they do not explain a very important aspect of modern organisations: the actual coexistence of the different, and sometimes contradictory, theories and techniques of management on the work floor.

This coexistence can be seen in two main ways. The first is when, within the same organisation, one can find that the working practices in some departments are completely different from those in others. For example, there could be the difference in pay, working hours, types of contracts, relationship with unions, discipline and other regulations, for workers in manufacturing areas and those in managerial/clerical positions. The second is when the same individual is expected to behave differently, in different

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[74] I have exposed in Chapter 1 some of the limitations that I have found in Hollway's work.

organisational settings. For instance, the manager that is expected to behave in a very sympathetic, humanistic and participatory way towards the workers, while his/her job is measured according to a set of very narrow, defined, and measurable objectives, regardless of his personal circumstances or needs, by his/her superiors.

As I have argued elsewhere, one main aspect in Foucault's theoretical framework is the idea that the techniques developed to produce docile subjects may, instead of being completely replaced by newer versions, reinforce each other, despite great differences in their respective theoretical underpinnings. This idea of mutual reinforcement instead of replacement, helps us to look at current managerial ideas, such as TQM, in a different light, and could account for the complementarist nature of the different methods that have been produced under its banner. The same will be argued about CST. As a consequence, the structure of this chapter will offer strong emphasis on the interplay between power relations, bodies of knowledge and forms of self-understanding at different historical moments, leading towards the complementarist nature of one of the most recent managerial techniques.

The importance of TQM when exploring the origins of CST is also supported by the fact that Flood and Jackson use TQM as the first example to

demonstrate the applicability of TSI - the methodological development from CST.[75] The usefulness of CST in helping in TQM's implementation also constitutes the central argument of Flood's (1993) *Beyond TQM.* In subsequent chapters, I shall argue that it is possible to think that the same "rationale" that inspired TQM (as an example of current managerial techniques), inspired CST to a very large extent. This line of argument could undermine CST's claims that it has been inspired by contemporary philosophy. This is to say, CST could be regarded as using contemporary philosophy as a device to mask the interest in efficiency and profit that characterises managerial interests, with an aura of pursuing what are presented as non-historical human interests. As a consequence, Foucault's ideas may help us to understand the origins of CST under a different light, as linked to wider processes of normalisation in society.

The first part of this chapter, in which Hollway's research has been most useful, relates the emergence of what is commonly known as "scientific management" and the beginnings of the "human relations" school. Since I wanted to highlight the fact that I had explored the role of these themes in the production of a certain type of subject, I entitled these sections "the creation of the economic man" and "the creation of the socio-emotional worker". The general criterion behind this selection can be found in my interest in relating certain concepts from the management sciences, to

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[75] Flood and Jackson (1991b).

certain developments in systems thinking and practice in the UK, and therefore, to the origins of CST. This will be done in later chapters. Next, following Rose, I shall discuss the consecutive reactivation of these themes according to the problems faced on the work floor.

This chapter will end with a revision of Total Quality Management (TQM), which is considered neither by Hollway nor by Rose. I shall argue that by exploring TQM one is able to see how different techniques, developed to meet the needs of the factory floor according to the social discourses of the time, reinforce each other under this new banner. It traces the progression from the techniques developed in early industrialisation when workers were considered as little more than machines, through the techniques that advocated the importance of satisfying workers' needs as promoted by the human relations theories, to the techniques that emphasise the need for a worker's participation within a more democratic framework. They all are presented in a complementary fashion despite some great differences in the theoretical frameworks, and the historical circumstances that produced each of them.

4.2 The creation of the "economic man".

Scientific management was aimed at improving both the production systems and the utilisation of resources. As Taylor (1967) says, "as to the importance

of obtaining the maximum output of each man and each machine, it is only through the adoption of modern scientific management that this great problem can be finally solved" (p. 27). The central theme in Taylor's ideas is what he calls the "task idea". As Hollway says, quoting Cadbury (1914), "this meant that the task of every workman is fully planned out, and each man usually receives written instructions describing in the minutest detail the work which he is to accomplish, as well as the means to be used in doing it" (p. 101).

The importance of the "task idea" can be understood in terms of the systematic transfer of craft knowledge and skills, and the control over them, from the workers to the management. The management, in turn, gave back that knowledge and skills to new workers in a fragmented and disconnected manner; that is to say, all workers were then treated as unskilled. In this new setting, any worker became instantly replaceable and craftsmanship became not only a thing of the past but also redundant. This phenomenon contributed to the degradation of work, as claimed by Braverman (1974), Hoxie (1915), and others.

However, we must emphasise, as Roll (1968) points out, that the "task" idea, and more importantly, experimentation on the shop floor are not entirely new;

> The presence of experimentation in scientific management shows that these are not exactly a product of the era of mass production but were apparent from the very beginning of the machine industry. (p. 271, quoted in Hollway, 1991, p. 17)

Along the same lines, Hollway (1991) says, the task idea was powerful because of the success and legitimacy of the nineteenth century's natural science (p. 18), and because it collected and systematised what was already happening in many manufacturing industries (p. 15).

Scientific management produced not only a new breed of workers but also a new management class: the supervisors. Its creation was seen as necessary in order to exercise control over a continuously expanding size of factory; however, the larger factories' existence necessarily created physical distance between the owners and the shop-floor workers. Furthermore, the focus of conflict and industrial unrest was shifted to a large extent from the owner-worker to the supervisor-worker relationship.

This is not to say that scientific management did not encounter strong resistance. Trade unions and many industrialists alike were concerned about its effects on workers' attitudes and industrial unrest. As Cadbury (1914) says,

> The reduction of the workman to a living tool, with differential bonus schemes to induce him to expend his last ounce of energy, while initiative and judgement and freedom of movement are eliminated, in the long run must either demoralise the workman, or more likely in England, produce

> great resentment and result in serious differences between masters and men. (p. 105, quoted in Hollway, 1991, p. 17)

However, industrialists found themselves at a cross-roads since they could not ignore the improvements in production and profits that scientific management brought. As a consequence, as will be seen later, new strategies were devised to counter the adverse or unforeseen effects of scientific management when applied on a large scale.

Hollway (1991) points out that the "task idea" is important because it provided a strategy which "changed the focus from workers *en masse* to workers as individuals" (p. 16). This focus on the individual, she believes, constituted a fundamental factor in the production of some disciplines such as work psychology, as well as being a very important tool to counter the organisation of labour into unions. First, workers were no longer hired anonymously; now they were selected according to the characteristics of the job they were to perform; in this sense, new techniques were developed to design and improve the selection process and the jobs themselves. Second, collective bargaining suffered a set-back since workers were now treated and measured individually against the "standard" set by the management. It is important to stress that, in this context, the concept of "individuality" must be understood as the set of characteristics that the organisation finds useful/desirable from a worker: in other words, his/her work-force. At the time, aspects of the worker's personal make-up (such as needs, interests and interpersonal relations) could not be taken into account because the

necessary theoretical tools had not yet been developed. More importantly, these personal characteristics had not been linked to efficiency and profit.

According to Foucault (1977), from the eighteenth century onwards, many institutions were created in order to regulate human behaviour, among them the asylum, the prison, and the school. These institutions shifted the discipline and punishment of the body that characterised the old authoritarian regime to new techniques that, once internalised, will create individuals who will discipline themselves. All these systems rely heavily on the surveillance of individuals. In this context, scientific management, with its shift from the authoritarian order of early industrialisation towards a government based on the law, explicit regulation of the work, supervision, and principles derived from the natural sciences, represents the first attempt in extending this new concept of government into a new domain.

One key difference here is that in the prison and the asylum individuals are "differentiated" and then separated from their natural livelihoods. The working environment, in contrast, lies at the very core of any individual's existence, regardless of other considerations such as class, gender, age or race. I do not wish to imply that scientific management affected individuals in the same manner or to the same degree, nor that it attempted to dilute these differences; on the contrary, as Hollway (1991) argues, new systems of differentiation were also created; this highlights a very important difference between the "scientificist" rhetoric and practice.

> Initially an unskilled labourer could proceed all the way up this hierarchy, becoming an overlooker, foreman and manager. Gradually the promotion patterns in industrial organisations changed from a continuos hierarchy to an arrangement where managers were recruited from a separate class who had access to further education and training. This both reflected and reproduced a situation in which the perspective and values of workers and management were increasingly differentiated and these differences were structured into the organisation. (p. 21)

The importance of this difference, between the discourse and what is manifest in reality, must not be overlooked nor assumed as an "implementation" problem. As discussed in previous chapters, the role of the discourse - in this case scientific management theory - is to mask under an egalitarian and neutral rhetoric the new systems of micropower. Taylor himself was well aware of this discrepancy between his theory and what happened in practice; as could have been expected, his response was well in line with current conceptions of scientific knowledge and its application: "the best mechanism for applying these general principles should in no way be confused with the principles themselves". (Taylor, 1967, p. 29, quoted in Hollway, 1991, p. 27)

Hollway (1991), quite rightly, highlights that this distinction between theory and practice also "protects Taylor from any responsibility for the negative effects of what he was advocating" ... although ... "he does not disclaim responsibility for what he considered positive effects" (p. 27). However, as Hoxie (1915) points out, when one tries to study scientific management and

its effects in practice, it is almost impossible to distinguish what effects can be directly linked to scientific management, and which of those would still exist without it (p. 16). One factor is clear, though; scientific management did not reverse power relations in practice. Quite the contrary: the power of employers was enhanced once they gained control over the craftsman's knowledge and changed the way this knowledge was put into practice. This phenomenon was boosted to a large extent by the claim that scientific management, as based on general natural laws, was above management and workers, and they both, in an egalitarian fashion, should observe them.

In Britain, the reaction to the developments of scientific management was quite mixed. As Hollway (1991) points out, "Cadbury is critical of scientific management to the extent that it was based on *"enforced* standardisation of methods, *enforced* adoption of the best implements and working conditions, and *enforced* co-operation". (Cadbury quoting from Taylor and adding the emphasis, in Hollway p. 32). However, as has been discussed earlier, industrialists could not easily ignore changes that were not only in line with current practices and ideologies, but also that seemed to increase production and profit. In this context, Cadbury highlighted that, despite the drawbacks, three areas of scientific management were of great importance: training based on time and motion study, tool design, and of course, selection of workers. These were to become, as Hollway points out, the central pillars around which industrial psychology and other "management sciences" would be developed.

4.2.1 The First World War and the Factory: "the research into fatigue".

Up to this moment some of the claims made by scientific management have been discussed and challenged. Its effects on working conditions, working relations, unions and their bargaining power, and the reservations expressed by industrialists have been pointed out. However, it has also previously been said that the interaction between knowledge and power relations, and its effects on concrete practices cannot be seen exclusively in terms of repression and/or destruction. The creative potential of knowledge and power relations was made very clear during the First World War.

During this period, the government, industrialists, and workers united to increase output from the factories. Supported by the developments in scientific management, many researchers studied different aspects of the ammunitions assembly lines. Furthermore, because of the great number of male workers who were sent to and killed in the front lines, many of whom were replaced by women in the factories, workers began to be regarded as an important asset in the workplace. Not only were they not easily replaceable, but also the quality of their work was perceived as paramount in the battlefields. These new conditions made industrialists and government look eagerly for production techniques that were more efficient while less physically demanding.

As a consequence, one of the aspects that became the focus of close attention was the relationship between fatigue, hours of work, and output.

The results were perceived as extraordinary. Researchers were able to demonstrate that there was a direct relationship between working hours and output. This relationship was not in itself particularly revolutionary at all; however, the fact that there was identifiably correlation at a point beyond which productivity decreased dramatically was completely unexpected. The implications of these findings were enormous. Firstly, the new "scientific" knowledge was able to show a new "truth" that seemed to lie beyond the claims from workers and employers, and at the same time satisfied the interests of both groups. Secondly, the researchers' role seemed to be more legitimate in two main aspects: they were able to show the way towards improving productivity and working conditions at the same time, and also they and their knowledge could be regarded as directly responsible for these improvements.

In sum, as Hollway (1991) says, "Fatigue research represented a happy union between the often opposed forces of efficiency and welfare: not only did productivity increase, but workers undoubtedly benefited" (p. 36). It is important to stress, though, that the improvements were not implemented in the same way and to the same extent in the various sectors of the working force; as Hollway says, the fact that the presence of women was an important factor that triggered this kind of research, women being the first to benefit from findings that were extended to men's working conditions later, is being largely ignored: "History has been written as if all workers were male, or at least the same" (p. 37).

4.2.2 The First World War and the Armed Forces: data gathering and legitimisation.

There is another area where highly important expertise in management studies was gathered: the Armed Forces. During the years of the war many experts were recruited in order to help the forces in a wide range of issues, from the selection of new recruits to closely detailed logistical aspects involved in the war effort. Taking into account the number of individuals that needed to be assessed, the war provided an excellent opportunity to gather large amounts of information regarding workers' physical characteristics and abilities according to the models of the time. This information, in turn, was central in the placing of individuals and in decision-making. After the war, there was no doubt in the minds of the government, industrialists and workers of the vital role that this new knowledge and experts played. Then, selection and appraisal tests were increasingly developed for "engineers, weavers, embroiderers, dressmakers, packers, chocolate and biscuit makers, box makers, solders, clerical workers, invoice machine operators, retail saleswomen, etc." (Hollway, 1991, p. 56).

As a consequence, the war provided an unique opportunity for this knowledge and these experts to align themselves politically with the "ideals" that justified the war, and also to give, with the victory, indisputable proof of their applicability. Furthermore, there was a great amount of data that could be used in other arenas of the social body.

4.2.3 The First World War and the State: the welfare concept.

Finally, we must consider another issue that originated during the war and that was to become increasingly important in the inter-war and post-war periods: the welfare of the population. At this juncture, and expressed from different directions, there were serious issues regarding the physical and moral state of the population. Philanthropists such as Cadbury and Rowntree[76] were concerned with the poverty suffered by many in the working classes;[77] the armed forces were finding it difficult to recruit enough soldiers required for the administration of the Empire (White, 1901);[78] and finally, there were not enough fit men to fulfil factory requirements.

It is not surprising, then, that many in the government and in the armed forces believed that the "scientific" approaches used in the war had much to offer in the post-war years to improve the general well-being of the population. This belief was reinforced and promoted by industrialists such as Rowntree and Cadbury, who strongly believed in the compatibility of business and welfare, and who later held important positions in government. This emphasis on welfare was the key issue that separated the post-war

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[76] "There are certain conditions which must be secured for workers and they include decent wages, working conditions and security, and a status for the workers suitable to men in a free country in the twentieth century." (Rowntree, 1979, p. vii, quoted in Hollway, 1991, p. 40)

[77] According to Niven (1967), "It is estimated that even in 1910 one-third of all wage earners lived in absolute poverty". (p. 28, quoted in Hollway, 1991, p. 39)

[78] "In the Manchester district ... two out of every three men willing to bear arms are virtually invalids". (pp. 102-103, quoted in Hollway, 1991, p. 39)

approaches to management from the original "scientific management" promoters. The distinction served to overcome workers' resistance to "scientific approaches" and seemed to mitigate the alienating effects of these.

A clear result of this relationship between industrialists, politicians and workers can be seen in the creation of the National Institute for Industrial Psychology (NIIP) in 1921. This organisation, not surprisingly, is perceived as self-managed and "independent" by unions, employers and politicians:

> The Institute will assist ... employers in finding the best way to do each piece of work by the aid of scientific knowledge and scientific methods; and in addition to finding the best way to do each piece of work, we also want to help the employer to find the best job for each worker.
>
> It will help to increase output. But in addition to this, and perhaps more important, we know that it will reduce fatigue and it will add, we think, directly or indirectly to the happiness and well-being of the workers of all classes. It is also because of these things that we feel that we can appeal to every class for support of the Institute.... We appeal also to the socialist and the philanthropist, because we are helping to strike directly at some of the root causes of illness and poverty, of unhappiness, and even of crime. (Quoted in Hollway, p. 40)

Two factors must be highlighted here: firstly, that in practice not only employers supported the Institute and its claims, but also that workers, and some Labour MPs, believed in the impartiality of the Institute and the neutrality of its methods (Hollway, p. 41). Secondly, that the Institute agenda was set from the start by the employers with a strong emphasis on psychometric measurement for selection.

> The NIIP became increasingly dependent upon work based on psychometric measurement, which employers wanted to improve selection. There was a retreat from working conditions research, maybe partly because legislation and the factories inspectorate covered these areas, but also because of the move towards the individual as the object of strategies of regulation. (Hollway, p. 42)

In sum, the analysis of the First World War and of certain post-war events has provided us with a most appropriate example of how power relations and different forms of knowledge interact in order to produce and modify social practices. These, in turn, interact with the former in such a way that it is almost impossible to differentiate between them at any given moment. It has also been seen how practices, knowledge and power relations support each other while moving from one arena of the social body to another, always changing and taking advantage of new refinements. In terms of the development of Management, the scene is now set for a new and unexpected act, the creation of the "social" and "psychological" worker.

4.3 From task management to the management of interaction: the creation of the "socio-emotional" worker.

In 1927, some studies were carried out at Hawthorne, a subsidiary of AT&T. They focused on the effects on productivity of women workers of a great variety of changes in working conditions, including illumination and rest pauses. These studies consisted mainly of changing one variable and then

observing and measuring the changes in the production output. However, instead of discovering a positive/negative cause-effect relation for the each of the variables considered, they found that, in all cases, a rise in the production output of the group took place. In other experiments with a male group, they found that despite changes in working conditions the production output remained constant.

Even though the results were different, it was assumed that improvements in the female group could be attributed to improved social interaction amongst the workers, and between them and the management. This conclusion became the most important discovery of these studies, and, for the first time, workers' attitudes and social interaction became linked to efficiency.

Hollway (1991) points out that these results could be explained in terms of Elton Mayo's emphasis on communal ties, loyalty and solidarity.[79] He went to the plant in 1928 as a Professor of the Harvard Business School, which was involved in the process. Besides Mayo's influence on this experiment and on further studies conducted - especially the programme of interviews that was carried out until well into the 1950s - it is very important to highlight the mental framework within which these experiments were conducted. This can

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[79] It is difficult to say to what extent gender stereotypes combined with the "facts" observed guided the researchers in a particular direction. One thing is certain: male workers' resistance to change, and solidarity, were conditions that had been accepted since scientific management was first introduced. However, the same aspects were not taken into account to explain the improvements in the female group. Furthermore, it was assumed that the conclusions from the female group, this time in terms of social interaction, could be extended to the male group without difficulty.

be seen in the following statement made by one of the senior researchers involved at Hawthorne:

> A new era of personnel relations began: It was the first real attempt to get human data and to forge human tools to get them. In that year a novel idea was born; dimly the experimenters perceived a new method of human control. (Roethlisberger, 1949, p. 16, in Hollway, p. 70)

This kind of statement helps us to understand what kind of knowledge these studies were intended to create. It was not scientific "neutral" knowledge, but a path to overcome workers' resistance to the control by management. The techniques developed, as we can see, relied heavily on the gathering of data and the design of methods to obtain these data. It was now clear that workers themselves were able, under certain circumstances, to overcome variations in the working conditions without affecting the quality of the output (and even improving the overall performance), as a result of "improved" social interaction. Furthermore, they seemed to counter-balance these changes without exhibiting negative reactions to pressure, and also without any visible physical/emotional stress.

After these studies new dreams were visualised. On the one hand was the possibility of avoiding the workers' possible adverse reaction (in terms of performance and industrial unrest) to changes in technology, a reaction that scientific management had suffered in the past. It may even be the case that technological changes could boost output. On the other hand, researchers

could focus on a new area of research and intervention: the internal group relations and the relationship of workers with managers.

However, despite the emphasis placed by Hawthorne's researchers on workers' relations and on the importance of the informal group, as Hollway (1991) concludes, the stress was shifted towards the individual and his relationship with his/her manager, in terms of "worker's satisfaction":

> The discovery of the influence of the small group did not lead primarily to changes in practice based on small groups for the majority of employees. For example, it did not become standard practice in factories to select workers, say on the basis of friendship, or to develop ways of encouraging them to relate well together. The line of argument developed was the concern with worker satisfaction. For this purpose, the individual employee in relation to management became the focus; the group becoming just background. (p. 70)

This point is most significant because it allows one to see how knowledge is selected though social and historical circumstances rather than on "scientific merit". It is quite obvious that to strengthen group relations amongst workers was not a politically wise move to make, since it would indirectly benefit unions and thus improve their bargaining position. Furthermore, the new path opened by this approach allowed for the existing tensions on the work floor to be re-phrased in individual terms (as a result of the personal tension between foreman and worker), rather than as a result of wider ideological tensions. In this context, and focusing on the individual worker in relation to

management, supervisors and others in middle management became the immediate target of new techniques.[80]

It must be stressed, though, that these types of changes were possible only after the experience of joint collaboration between workers and employers during the war, and the subsequent Allied victory. They do not mean, however, that it was possible to turn the clock back and start with a new approach all over again. This would presuppose some kind of human nature that remains untouched by historical conditions and that can be restored by some means. The workers encountered at Hawthorne's by the researchers, and the researchers themselves, were already the product of management's ideas and practices. What we can see here is the way knowledge is produced through the interaction with power relations and concrete practices, triggered by contingent circumstances.

As will be discussed below, scientific management and the further changes experienced in management science during recent years have come to stay, even if their correlation, made possible by a set of common objectives, is not always utterly coherent. Following Foucault's ideas, these new strategies, instead of replacing old ones, overlap with and reinforce each other. This

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[80] "Virtually all management and social scientists, as well as a few labour leaders, agreed that the foreman was the key figure in labour relations. The degree to which the worker was satisfied with his foreman was the degree to which he was satisfied with his job." (Baritz, 1965, p. 182, quoted in Hollway, 1991, p. 79)

challenges the traditional view of knowledge where it is first produced and then put into practice. It also defies the assumption that knowledge is produced through a linear process in which improved versions of the social and natural worlds completely replace previous conceptions.

This thesis will now take a closer look at the two most important changes made possible by the creation of the "social" worker: the shift towards supervisors and middle-management training, and the interest in motivation, job satisfaction and job redesign. The subjects of these new techniques are carefully selected: the former targets supervisors and managers; the latter, workers. As we shall see, the changes produced in either group will affect all those involved. This does not represent a problem in itself, since all these techniques are intended to

> induce consent and commitment, ... while assuming that workers ... would control their own relation to the job (though not control their own job) as management desired if they were treated in a way which was consistent with an understanding of the root causes of their behaviour. (Hollway, 1991, p. 88)

Before discussing these two important developments, it would be useful to emphasise even further the role played by the new interviewing techniques in assuming the worker as a "whole individual".

4.3.1 The "whole individual" as a target of managerial techniques.

What was "the whole individual" for the managers of that time? What kind of dimensions did they consider and/or exclude, i.e., emotions, physical abilities, gender, religious beliefs? This can probably never be established with exactitude; mainly because the concept of "individual" that we seem to share today is historically created and modified. However, there is a partial view of the processes upon which it was built: the newly introduced "interview" techniques.

As briefly mentioned in the previous section, parallel to Hawthorne's experiments centred on the changing of illumination and other working conditions there was a programme of interviews conducted by researchers, and later by supervisors and middle managers. As Hollway explains, at the beginning of the programme, the information collected from the workers was given indirectly to the supervisors; later, when the management became interested in the information gathered, this was included within existing supervisor-training programmes. It was also used as feedback regarding changes in policies and incentives. Although morale surveys were already in place, what is novel in this programme is that for the first time, the questions were intended to encourage workers to say whatever they had in their minds, rather than trying to find out what managers wanted to know. It is obvious that managers could later "scoop" and filter data regarding a particular issue if they wished to do so.

However, this programme had certain obstacles to overcome. First, workers were well aware that whatever they said could land them in trouble not only with their peers, but also with the management. In this sense, the fact that researchers were the first to conduct the interviews helped to overcome these fears; later on, supervisors from other sections of the plant were selected; new rules regarding information confidentiality were also considered useful. Second, it was necessary to reciprocate by giving something in return to the workers so that they could see the experience as worthwhile. This was done indirectly through the feedback given to supervisors' resulting on the work floor in changes that could be perceived as "improvements" by workers.

Finally, even though policies such as "confidentiality" could somehow overcome the fear of reprisal, they could not, on their own, guarantee that the information given was entirely, or even partially, true. Taking into account the fact that the interview programme involved many workers, it is possible to assume that certain of the issues mentioned in several instances could have a more "objective" weight than others. However, and considering that the interview model was heavily influenced by interpretation - while looking for deeper meanings in terms of the psychoanalytical concept of repression (Hollway, p. 85) - it was possible for researchers and managers alike to re-phrase issues that were not appealing to either of them. In this sense, Hollway remarks, supervision was the area in which workers' statements could not be considered without re-interpretation. (p. 79)

Furthermore, the fact that it was now legitimate for employees to invoke personal problems and experiences and expect them to be taken into account when dealing with supervisors is very significant. On the one hand, it gave the management the legitimacy to seek and request personal information, as they considered it appropriate, from everybody. On the other, employees could use this information for their benefit only in very specific and extreme circumstances, and in doing so, they would have to disclose even more personal details.

In sum, the parameters, what information to use and what to ignore, how to prioritise and organise it, and so on, were, of course, the prerogative of management. In many cases, this heavily processed information was returned to employees as if it were the raw product of neutral scientific techniques in order to support existing organisational policies, or to serve as a platform upon which prospective policies could be articulated and presented.

Within this framework, it is worth considering the relationship between workers' self-understanding and the interviewing process. Was this programme merely a technique for extracting information about workers' particular attitudes so that the latter could be controlled?

It is clear that the control of human behaviour was in the mind of researchers and managers alike, a control that was sought through "discovering" the characteristics of human nature. However, as mentioned before, this approach presupposed that human nature ought to be something ahistorical and according to universal laws. However, as has been highlighted, individuals (workers, researchers, and managers alike) were transformed by the techniques used to gather "human data", and by the practices that were continuously implemented according to these data. Hollway points out a statement made by Roethlisberger and Dickson (1970) in the sense that workers seemed to "said things that they'd never expressed to themselves", which reinforces the view that under the disguise of knowledge as being "discovered", there are some hidden processes through which human knowledge is "created".

In sum, what workers and researchers were witnessing and experiencing was not the discovery of the laws governing human nature, but rather, and more importantly, how human subjects are produced and transformed through the interaction of relationships of power and knowledge.

4.3.2 Human relations training.

As mentioned above, one of the most important developments following Hawthorne's studies, and taking into account the continuous changes in workers' self-understanding, was the targeting of supervisors and middle management. These new developments did not mean that workers lay

outside the scope of the new managerial techniques. On the contrary: targeting this new group was an indirect way of attempting to discipline workers, so they would take responsibility for their relationship with their jobs, even though the way jobs were defined and controlled was, and still remains, a managerial prerogative.

These new techniques, as will be seen later on, will have a profound impact on future organisations where the distinction between shop-floor workers and middle management is to be blurred; organisations that are to be characterised by the automation of modes of production and/or by the shifting from the manufacturing sector to the provision of intangible services.

Following Foucault's theoretical framework, the changes in supervising strategies did not take place overnight, nor were they the product of a planned strategy[81]. They occurred hand in hand with the changes in the way workers were perceived as having feelings and needs: changes that were simultaneously linked to performance and profit. As Hollway (1991) relates, in the initial stages, supervisors were informed indirectly of the findings of the interviews conducted by researchers; these findings also made an impact on the way changes on the shop-floor were implemented. Later on, this information was formally included in the supervisors' training

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[81] The relationship between Marx and Foucault is highlighted in Footnote 113. Foucault's concepts of power and freedom are explored in Section 3.6.

programmes and, since they were asked to conduct interviews to gather more information about the workers, they were also trained in the interviewing techniques (p. 79).

The role of the supervisors did not end there. They were also in charge of responding to the needs of the new workers, and for the whole process to be successful, it was required that workers did not perceive their supervisors as inauthentic in their new and more "humane" attitude. This is what Hollway (1991) calls the problem of "authenticity". In this sense, she concludes, "managers had to be transformed so that they could live out the democratic and humanistic relations with their subordinates with sufficient conviction" (p. 93).

The shift towards internal transformation is very important in the current analysis. First, it must be stated that until this time managers wanted to know the feelings and needs of workers in order to discover, through interpretation, the deep roots of workers' resistance and factory unrest. This is to say, managers wanted to know the "true nature" of workers and thus act according to this logic while pursuing the company's policies. The new approach is entirely different; it presupposes that what was previously perceived as "the true nature" of the workers is something that can be engineered. In terms of supervisors and middle management the problem was firstly framed as the question of how the workers' inner selves could be

engineered so the new attitudes required by management, in terms of the humanistic approach, would evolve naturally.

This new shift not only posited practical problems in terms of the development of the adequate training programmes for supervisors, but also posited ethical problems in terms of how to achieve these changes without being morally intrusive or openly manipulative. In this context, Hollway (1991) points out that

> the perceived contradiction between democratic free choice and the need for change illuminates my theme that the human relations movement was involved in subjectification: transforming compliance into co-operation, consent into commitment, discipline into self-discipline, goals of the organisation into goals of the employee. (p. 94)

This process of subjectivation, in which individuals internalise and materialise predefined changes while perceiving that they are choosing freely, represents a very powerful and increasing force in contemporary society. The difference between the process being referred to and domination is that in the latter there is/are certain "actor(s)" that remain unchanged while intentionally modifying the others; in the former, the changes are triggered within the web of power-knowledge-practice thus every individual is transformed in one way or another.[82]

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[82] The same distinction can be found when we consider the creative dimension of power relations and its difference from domination/subjugation. See previous chapter.

These problems were partially solved when change was assumed as necessary in order to liberate the inner good of any human being.[83] This new individual, "coincidentally", shared similar characteristics with those whom management wanted to promote. In this context, neither the "power of the educator nor the interest of the organisation are admitted"; furthermore, they can be comfortably down-played or totally ignored (Hollway, p. 95). The discussion of this new approach regarding human nature must be held in the context of the other shift that emerged from Hawthorne's, i.e., the emphasis on motivation and job re-design.

4.3.3 Motivation and job re-design.

The problem of job re-design was not new at the time of the Hawthorne's studies. It had formed the basis of the main competitive advantages that Taylorism and Fordism had given to manufacturing companies.[84] As was discussed earlier, the implementation of this new method of production

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[83] "Human relations... was based on the belief that if, by means of a climate of trust leading to openness and the expression of feelings, one peeled off the layers of defence and hurt, the individual would be revealed as basically good and loving. Attempts to change individuals in this direction were thus automatically justified. This was reinforced by, and helped to reproduce, a widespread belief in the value of change in the personal sphere". (Hollway, 1991, p. 95)

[84] "The concepts of job design held by [engineers and industrial managers] have exerted an exceedingly strong influence. These concepts are centred around specialization of labour, minimizing skills and minimizing immediate production time. They are based on limited criteria of minimizing immediate costs or maximizing immediate productivity. Thus job design is based upon the principles of specialization, repetitiveness, low skill content and minimum impact of the worker on the production process." (Davis and Canter, 1956, 276, quoted in Hollway, 1991, p. 96)

based on standardised product design and production lines, extensive use of machinery and monetary rewards had its costs in terms of workers' resistance, absenteeism, and turnover.[85] There were also sound critiques emerging from academics, philanthropists, and some industrialists on the principle of specialisation when applied to workers' jobs as well as machinery.[86]

However, with the production of the new concept of the worker as having feelings and needs (that could not be satisfied through financial incentives, and were linked to performance and profit) that emerged from the Hawthorne's studies, the old concept of job-design was transformed by the new idea of "intrinsic rewards". This new approach can be summarised as resting:

> [L]argely on the premise that effective performance and genuine satisfaction in work follow mainly from the intrinsic content of the job. The practice of job design is concerned largely with designing the content of

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[85] "Having developed a new industrial technology based on the flow-line principle and extreme job fragmentation, Ford found that control of the production process was not equal to the control of the workforce. Worker rejection of the new work processes was expressed in high rates of turnover, absenteeism and insufficient effort. For example, the head of Ford's employment department in 1913 cited a figure of $38 to train up a new worker; a small amount, but with an annual turnover of more than 50,000 workers (i.e. 400 per cent) the total cost was two million dollars." (Littler, 1985, p. 15, quoted in Hollway, 1991, p. 96)

[86] "The principle of specialization is productive and efficient. But it is very dubious *[sic]* indeed, whether we yet know how to apply it except to machinery. There is the first question of whether "specialization" as it is understood and practised today is a socially and individually satisfying way of using human energy and production - a major question of the social order in industrial society." (Drucker, quoted in Davis and Canter 1956, 276, quoted in Hollway, 1991, p. 97)

> jobs in order to enhance intrinsic rewards such as feelings of achievement and worthwhile accomplishment. (Cooper, 1974, p. 12, quoted in Hollway, 1991, p. 98)

The emphasis on "intrinsic rewards" that characterised the practical implications of the new approach to human nature was made possible by theoretical developments such as those of Maslow (1954), and later, of Herzberg, Mausner, and Snyderman (1959), and Herzberg (1968). Maslow presented the human being as aiming to satisfy its needs in accordance to a defined hierarchy: Physiological, Security, Social, Ego, and Self-Actualising needs. In this schema, worker's "lower-needs" - in terms of physical conditions and basic security - ought to be satisfied to a great extent before the next levels become meaningful to the individual; the higher needs, however, were more intangible and difficult to satisfy, if it were ever possible to do so at all.

Herzberg was quick to point out that Maslow's approach, although important in its overall view, was Utopian, leaving managers with a feeling of perpetual failure in the achievement of their worker's higher needs. Maslow's hierarchy of needs

> has led many people to feel that the worker can never be satisfied with his job. How are you going to satisfy the dilemma of trying to motivate workers who have a continuous revolving set of needs?... In answer to this question "What do people want from their jobs" always to be, "It depends?" We certainly need a less pessimistic approach if the rewards from better

> motivation for both industry and individuals are to be gained. (Herzberg, Mausner and Snyderman, 1959, p. 110, quoted in Hollway, 1991, p. 102)

In contrast, he proposed a re-grouping of those needs into two sets: Animal and Human needs, where the second set of needs

> The second set of needs relates to that unique characteristic, the ability to achieve and, through achievement, to experience psychological growth. The stimuli for the growth needs are tasks that induce growth, in the industrial setting, they are the job content. (Herzberg, 1968, p. 56)

In this way, Herzberg introduced a more "workable" concept for managers, a concept that has been known since then as "motivation". Under this concept, the changes in direction that emerged from the Hawthorne's experiments, in terms of social interaction, supervising relations, worker's self-control of their relation with their jobs, and so on, could be placed together. Since this concept emerged from a generalisation of human nature, it could be applied to any employee, and any job, regardless of his/her place in the organisational hierarchy.

Furthermore, this new characterisation of human nature also encapsulated the changes that were introduced from the early research into fatigue during the Fist World War. Within this framework, the new ideas concerning job-design could be carried out with an aura not only of "neutrality" and "humane concern", but also of benefit for workers and managers alike.

The concept of job-design was not intended to replace the specialisation of tasks achieved during the implementation of Taylorism and Fordism. If we take into consideration the large amounts of capital invested in the production of new technology and machinery, it could hardly be otherwise. It was aimed, thus, at the alleviation of Taylorism's undesirable effects as pointed out earlier. It must also be emphasised that by the 1950s "the phenomenon of full employment and nearly 100 per cent utilisation of plant and facilities" (Hollway, 1991, p. 96), had placed managers under considerable pressure to minimise costs in supervising and in other activities that were not directly essential to production and thus to profit.

In this context, the new concept of job-design became of paramount importance. Under the new banner of satisfying workers' "human needs", this concept was aimed at finding new ways of re-deploying personnel, reducing production costs, absenteeism, industrial unrest, and improving morale. The new techniques were generically called "job-enrichment".

On the shop-floor, job-enrichment was preached as an approach that could improve the workers' sense of achievement and thus fulfilment. This was achieved through the delegation of some of the supervising activities, and the training of the workers so they could perform more than one task. It is important to emphasise, again, that little was changed in terms of how particular tasks were defined and by whom. In this sense, Hollway (1991),

quoting Walter (1950) who was involved in the job-enrichment programme at IBM, states that,

> It is not surprising that the change was presented, according to the human relations discourse of the day, as being initially concerned with 'the social and human implications' (p. 54) of altering factory practice. It is only later as an aside that... [Walter] ...points out that the war conditions put the cost of 'indirect supervision at an all-time high' (p. 55). With increasing wartime demand they could not find enough experienced machine setters and inspectors. The extension of responsibility of the machine operators was a practical solution to the problem, particularly given conditions of batch production, albeit one which was consistent with the culture of the company (Walter, 1950, p. 55, quoted in Hollway, p. 100)

Up to this point the discussion has concerned the conditions that made possible and produced new ways of understanding job-design, and the emergence of the concept of motivation. These conditions have been expressed in terms of the creation of new knowledge about human nature and human interaction, and how they have both modified and have been modified by power relations. It would be useful now to explore briefly the implications of these changes for workers' self-understanding in terms of the processes of subjectivation.

For the new models of job-enrichment and motivation to be successful, that is, to be put into practice, it was necessary that workers and managers be able to internalise them. As has been demonstrated, the problem of authenticity in supervisors was a serious concern that prompted new systems of training in interpersonal skills, and education in the new

"discoveries" about human nature. In terms of the workers, the problem was similar; i.e., how to produce a new individual who could make the company's policies his/hers, and more importantly, that s/he would act according to these policies through a process of "free" and "democratic" choice. In other words, it would be a scenario in which workers would control their relationship with their jobs according to the management guidelines. As Herzberg (1968) said, it was necessary to install a "generator" in every employee.

Herzberg's idea, although not entirely novel within the context of the "human relations movement", was at the centre of the attempts to manipulate the so-called "motivators in job content" at the work place. The justification was both ethical and, of course, financial. Firstly, it was understood to be in the interest of the "social good" to experiment with changes that could help workers to develop their "inner-good" nature, trapped by the effects of Taylorism and Fordism. This in turn would "allow" workers to feel more highly satisfied with their jobs. Secondly, it was shown as having economic benefits for the organisation not only in terms of reduction in the turnover, but also, because it replaced tactics that relied heavily on ever-increasing financial rewards, the shortening of the working week, and on the escalation in expectations through the improvement of interpersonal relations (Hollway, 1991, p. 104). As a consequence, workers found themselves subject, in a new way, to the re-arrangement of power relations within the organisation,

prompted by changes in supervision and hierarchy and to new ways of self-understanding.

With the arrival of international competition that characterised the 1960s, the ever-increasing fixed labour costs (those not related to performance), the phenomenon of full employment, and what was perceived as the sacrifice of productivity in order to maintain harmony on the shop floor, there was a shift towards the reactivation of values and strategies that could restore some degree of "control" to the management, reduce those fixed labour costs (or at least relate them to performance and productivity), and improve productivity. The "economic man" metaphor would have then to be resurrected with a new gloss that could reflect the values of the post-war society.

However, it must be stressed that this reactivation of the "economic man" was not only promoted as a response to the criticisms that the "human relations" approach was facing. There were also other highly influential lines of research, such as those created by the Tavistock Institute of Human Relations, which had to be "accommodated" within this new phase. In order to understand them it is necessary to take a look back at the World War II and at the work of the Tavistock Institute for Human Relations. This will be done in the next two sections.

4.3.4 The Second World War.

As in World War I, the events during the Second World War had a profound effect on the development of managerial knowledge, in the organisation of networks of power relations, and in the ways of self-understanding for workers and managers alike. These developments will briefly be addressed.

In general, the war effort demanded from society at large, and from industry and individuals in particular, a great many sacrifices in order to provide the people and goods required at the front lines and at home. Again, as had happened in the previous war, this was a period of an unchallenged "consolidation and generalisation of the networks of power that linked the duties of government, the objectives of business, and the techniques of management with the subjectivity of the worker" (Rose, 1989, p. 74).

There is no doubt that the political and local authorities had to take charge of the changes involved in the co-ordination of the war effort. However, needless to say these changes had to be undertaken in a way that "maintained morale at home and did not infringe the principles of liberty and democracy upon which this morale depended" (Rose, 1989, p. 76); principles that at the same time justified, to a large extent, the fight against the enemy.

During this period many new lines of research emerged, such as combining the research done previously on fatigue and on personal skills, and the

relationship between technical design and decision-making under conditions of uncertainty. Many practical research projects were undertaken such as those involving the working conditions, abilities, and efficacy of radar operators. This line of research will be discussed further in the next chapter, in the context of the development of what is known as Operational Research.

There was also much work that needed to be done in terms of the logistics of the war, including selection of personnel for the different duties in the army, either at the front lines or at home; the mobilisation of goods and arms; the offensive and defensive duties carried out not only by the infantry and the navy, but also by the air forces (heavily present for the first time); and the development and incorporation of newly developed war technology including instruments of enemy detection, and weapons of mass destruction.

Another important line of research was related to the management of public morale and propaganda. In this sense, governments undertook wide-ranging studies regarding the effect of information on morale in the front lines and at home, and more importantly, on the enemy's morale and commitment. This research, as we can see, had two distinct dimensions: the first was how to deal with the tensions that emerged from having the public informed about the developments of the war according to the principles of democracy, and at the same time, how to boost morale and to keep it at a high level even when the war effort was not proceeding as well as hoped. Secondly was the use of information to break the morale of the enemy, and especially of their

civilians, and to make them distrust their own governments; this implies not only the management of factual information, but also the disguising of false information so it could be "believed" by the enemy. No doubt, the knowledge and experience gained from this exercise in the management of factual and fictitious information would help government and industry alike to develop, on the one hand, new theoretical frameworks to justify the use of information according to particular needs (and the development of new methodologies to gather and to manage information), and on the other, to become more aware of the relationship among power relations, knowledge, and the way the self-understanding of individuals and groups could be transformed through their interaction.

The experience of this war helped the experts, their knowledge, and the new networks of power (in terms of social control, national efficiency, public information management, technology, and so on) to become legitimised once again and, at the same time, to align themselves politically with the ideals of democracy and freedom.

> The new human technologies of subjectivity aligned the management of the enterprise with images of the enlightened government for which the war had been fought and the values of freedom citizenship, and respect for the individual that had underpinned victory. Democracy walked hand in hand with industrial productivity and human contentment. (Rose, 1989, p. 87)

As we can see there is a remarkable shift from the industrial politics of the pre-war years in which work, democracy and freedom were almost

opposites; the factory was a battle field between the employers who wanted to exploit the workforce that in turn was protected by its unions; strikes, subtle and open forms of resistance, absenteeism, fights for salary increases and better conditions, constituted the currency of the industrial relationship. Now, after the experience of the war, it seemed to be the case that even though the basic contractual relationship between employers and workers had not changed, the experience of work could be perceived in a different manner, and the work place could be considered a space that participates in and promotes the goals and principles of society at large.

Finally, and in relation to the lines of research mentioned above, there was a great interest on the relationship between morale, fatigue, neurosis and industrial accidents; that is to say, the mental health of the worker. This line of research had two important foci: the combination of psychological and physiological knowledge in what will be known as ergonomics and human engineering, and the psychoanalysis of the organisation as promoted by researchers such as those working at the Tavistock Institute of Human Relations (Rose, 1989, p. 87). A description follows on the work at the Tavistock, since it will have interesting implications for the development of systems thinking.

4.3.5 The Tavistock Institute for Human Relations.

The Tavistock Institute for Human Relations was closely linked to Kurt Lewin's "Group Dynamics" research conducted at the University of Michigan.

He was interested in the relationship between morale, supervision, teamwork, and productivity following the model developed at Hawthorne. They founded together the journal *Human Relations*, "whose defining characteristic was the application of social science expertise from a range of disciplines - psychiatry, psychology, sociology and anthropology - to the practical problems of group life". (Rose, 1989, p. 88)

It is important to stress that despite the broad spectrum of disciplines, and the wide variety of interests that the Institute wanted to include, as in other similar research or advisory centres in the past, the issue of productivity became the dominant feature of its research (Rose, 1989, p. 89). The approach used by the Institute was psychoanalytic in its orientation, that is to say, it assumed that the problems seen in organisations could be attributed to neurotic illnesses, and these could be understood in terms of the interrelationship between the psychodynamics of the individual and the group. In this context, the consultant/therapist would assist the organisation to find its own way to solve its problems through the understanding of the underlying meaning of perceived symptoms. It is important to note that s/he would provide some interpretations in order to increase the groups' insight and ability to change. These interpretations would not only provide a general framework but also a language of communication and interpretation.

Later on, and based on Lewin's work, the Tavistock group developed what would become known as the "socio-technical system". In brief, this concept

assumed that the working processes could be organised according to both technological and psychological requirements, improving both the mental health of individuals and the efficiency of the organisation. In Rose's (1989) terms:

> [they]...claimed that the technology did not *determine* the relations of work - there were social and psychological properties that were independent of technology. Hence organisations could choose how tasks should be organised to promote the psychological and social processes that were conducive to efficient, productive, and harmonious relations. (p. 91)

The importance of the Tavistock's approach, in terms of the Foucauldian analysis of managerial ideas, is that it provided a very powerful mechanism through which technological requirements openly interact with managerial and psychological needs. However, this "gathering" did not occur within one level only. It was not the case that management, technology and psychological needs were now supposed to accommodate each other on the shop floor, but rather, that the subjectivity of the individual and technology could not only accommodate each other, but more importantly, that they could be put to work towards the managerial principles of efficiency, productivity, and factory harmony.

It would be very easy to dismiss the "socio-technical" concept as managerial and naïve because it does not acknowledge the shop-floor and organisational "politics". However, and within the framework of the present research, we should look instead at the way this knowledge interacts with

the existing power relations, and the extent to which it transforms the forms of self-understanding of individuals and groups. Along these lines, Rose (1989) says that

> to dismiss these authors as witting or unwitting servants of power would be to lose sight of the new images, values, and ethics of work they were seeking to forge, and of the new politics of work they explicitly sought to inaugurate. (p. 92)

It is true that the socio-technical approach promoted a particular way of understanding the labour relationship (through a detailed analysis of the labour processes in terms of technology and interpersonal/intra-group relationships), but more importantly, it provided a new technique through which the subjectivity of the individual could be transformed to correspond with the goals of the organisation. This process was supported by the interaction of the principle of "mental health" and the managerial concepts of "efficiency" and "industrial harmony".

However, as was highlighted before, by the 1960s there was a great deal of concern expressed by government and industry alike due to the perceived lack of competitiveness of Western industry against the emerging Far East economies. This phenomenon was explained in terms of the loss of control by the management of financial incentives and other rewards that were now part of the fixed labour costs, the effects of solidarity on the factory floor, official strikes and "unofficial" organised resistance, full employment, and so on. The response of government and management was to try to restore

some of the characteristics that were at the core of the "economic man" metaphor. This re-vitalising of the "economic man" had to be achieved through taking into account the current values of Western society, and would involve a re-accommodation of the power relations, managerial knowledge, and the subjectivity of all those involved[87].

4.4 The re-emergence of the "economic man".

As Rose (1989) points out, by the 1960s there was a generalised dissatisfaction regarding the orientation, interests, methodology, and effectiveness of the human relations school that had dominated management theory and practice for the last decades:

> Radicals and socialists criticised its managerial orientation, its justification of managerial manipulation of the worker, its denial of conflict in the workplace, and its repression of differences in power and distinctions of interest. Psychologists and sociologists criticised the methodology of the research and the logic of the arguments that had grounded the doctrines. Research evaluations appeared to show that there was no evidence for the propositions of human relations, and that its strategies were ineffective: supervisory training programmes had had little effect back in the factory, there was no consistent relationship between type of supervision and level of morale or productivity, and employees could gain as much satisfaction at work by defiance of managerial rules as by involvement with them. (p. 97)

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[87] As explained previously (see, for instance, Page 115, and Section 3.6), normalisation techniques are produced with the participation of workers and management alike, simultaneously transforming all those involved, although to a different degree and in different forms.

In this context, the old metaphor of the "economic man" was re-launched: financial rewards, internal competition, promotion packages, bonuses and so on were offered under the notion that workers should be rewarded as individuals for their efforts; job analysis and evaluation linked to pay deferential would help to motivate employees to become involved and actively contribute to the organisational goals.[88]

In this new environment, personnel managers, accountants, social workers and managers had to be trained in the new skills of personnel appraisal, quantification of attitudes, and performance, in order to produce "hard data" that could be linked to the economic rewards and incentives available, and that could legitimise managerial theories and practices such as restructuring, downsizing, training, and so on.

As mentioned before, although the new theories that supported the re-launch of the "economic man" showed it as the product of the progress in the management theory necessary to reactivating the industry, and as a result of

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[88] The re-launch of economic man metaphor did not benefit everyone to the same degree. Issues such as gender, age, race, and sexuality, determined which members of the organisation would benefit from the new incentives in place. These issues may constitute a topic for further research.

the re-evaluation of previous "misleading" research,[89] it was clear that the problems being faced by industry were not entirely explained in terms of "theoretical problems", but rather, and amongst other things, as a product of increasing union strength and new form of workers" resistance. As a consequence, it would be necessary to act not only on current conceptions of the labour process, but also, on existing power relations - that are a constitutive part of workers' interaction - and on the way workers perceive themselves and others.

If this was the case for the human relations research, the psychoanalytic approaches had another fate. The consultancy/therapeutic research projects were transformed into training courses and ready-made techniques for managers to "improve their managerial skills" and to improve themselves. Particularly successful were those created at the Research Centre for Group Dynamics of the Institute of Social Research at the University of Michigan, better known as "T-Group" techniques. As Rose (1989) says, by the end of the 1950s

> over a thousand people - executives from industry and government; members of the armed forces; people from the churches, trade unions, and educational organisations; community leaders; and academics - had passed through the training sessions. (p. 100)

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[89] "Monetary rewards, systems of payment, promotion opportunities, and other "traditional" factors were now reinstated as determinants of employee behaviour and opportunities for management. Even the Hawthorne findings themselves could be reinterpreted, it seemed, in the old-fashioned terms of financial incentives, firm leadership, discipline, and the pursuit of economic interests, which were now to be revived." (Rose, 1989, p. 97)

The T-Group technique attempted to help individuals to "manage" their interpersonal relations through the feedback given by a trained outsider who studies each one's behaviour in a group, transforming the individual's perception of him/herself and of his/her peers.

> T-Groups were thus more than merely instrumentally advantageous to their participants; they effected a fundamental transformation in their ways of speaking about and relating to others, they made them more insightful people at the same time as they made them better managers. Hence the enthusiasm arose not only from firms wishing better leaders and managers, but from individuals wishing to master these new techniques of the personal and interpersonal self. (Rose, 1989, p. 100)

As a consequence, we can see a clear move away from the emphasis on promoting group solidarity, trying to remove the barriers that damage the inner "good nature" of the workers, satisfying workers' feeling and needs, searching for lasting shop-floor harmony, and so on. The emphasis is now placed on the individual who is responsible for his/her relationships with him/herself and the others. It is now the individual who has to know and manage his/her inner-feelings and is totally responsible for the outcome of these relationships. It is not about how to become a better manager or worker, but rather, how to become a better person.

In sum, management theory and practice moves into a schema that is based on the "economic man" metaphor, in which the individual is responsible for the transformation of his/her perception of him/herself and his/her

relationships with others. It is not so much about transforming the external conditions that determine one's behaviour; the important factor now is to understand and accept personal responsibility and, more importantly, to take into one's own hands the task of transforming oneself in order to gain access to the rewards that the new organisation has to offer. Through the interaction of these assumptions the 1970's worker's subjectivity, and the networks of power relations in which s/he participates, were transformed.

In the 1980's with the increasing competition from Japan and other countries, the increasing use of alternative working arrangements (e.g. tele-working, flexible hours, quality circles), the reshaping of organisational structures to increase flexibility and competitiveness, the changes in family structure due to the increasing participation of women in the work force, and the increasing purchasing power of the worker, new theories, organisational values, and organisational structures, had been created to respond to the new challenges, and to promote some adjustments that would keep the basic working relationship intact under the new organisational forms. Let us discuss briefly the images that have been created and promoted in recent years, and that have reactivated, to certain extent, the project of human relations.

4.5 The reactivation of the project of human relations.

Rose (1989) argues that during the last decade there has been an important transformation in individual's self-understanding triggered by an alteration in the citizen's economic function; this has moved away from that framed within the "Protestant work ethic" to the one of the consumer:

> Through consumption we are urged to shape our lives by the use of our purchasing power. We are obliged to make our lives meaningful by selecting our personal lifestyle from those offered to us in advertising, soap operas, and films, to make sense of our existence by exercising our freedom to choose in a market in which one simultaneously purchases products and services, and assembles, manages, and markets oneself. (p. 102)

In this context, the worker is neither the "economic man" who works in search of rewards, nor the "psychoanalytic" being who must master his/her relationships with his/her inner-self and others (the images that interacted in the 1970's). The worker is a consumer, in search of meaning, identity, and self-fulfilment, through his/her purchasing power and work; both as part of the same continues around which his/her life is created and transformed.

> [A]n individual in search of meaning, responsibility, a sense of personal achievement, a maximised 'quality of life', and hence of work. Thus the individual is not to be emancipated from work, perceived as merely a task or a means to an end, but to be fulfilled in work, now construed as an activity through which we produce, discover, and experience ourselves. (p. 103)

From the tension that emerged between the image of the worker as a consumer, and the realities of the worker as a producer, combined with the managerial interests of securing commitment to organisational goals and of increasing competitiveness, emerged the "total" management theories that characterised the late 1970's and the 1980's. The most popular of these theories, Total Quality Management (TQM), is worth discussing further because of its implications for Total Systems Intervention (TSI).[90] The relationship between TQM and TSI will be discussed in the chapter dedicated to the production of CST.

4.6 Total Quality Management (TQM).

Taking some distance from the academic analysis of how different managerial models were developed, in this section I will provide a personal account of my work experience in different manufacturing companies during the 1980s. From my initial job as a production engineer in a medium sized company, to my involvement in the development and implementation of a TQM programme in one of the largest manufacturing organisations in Latin America.

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[90] According to Flood and Jackson (1991a), Total Systems Intervention is a "pragmatisation" of CST.

When I first joined a manufacturing company my impression was generally similar to the image one gets when looking at the world through a kaleidoscope, rather than the straightforward portrait given in the many courses in management sciences that I took during my undergraduate studies.

Indeed, I found a large number of supervisors who were in charge of looking after the interests of the company. The "interests of the company" was a euphemism used for the "interest of the owners" who by then had long gone from the factory life, being replaced by the managers and the production engineers such as myself. Actually, most of the managers were former production engineers who had been promoted because of their experience in, and knowledge of, the production processes. The supervisors, in turn, were recruited from technical schools, having some basic knowledge of production processes. The workers, who had very little schooling, were recruited to perform basic tasks, and were promoted along the production lines according to their abilities. The new workers were trained informally by the more experienced, although there were some basic training programmes in place. There was clear division between these groups (workers, supervisors, and engineers/management), it being almost impossible to be promoted from one group to the other. The separation between these groups could be perceived not only in terms of working conditions, salaries, working hours, codes of dress, and uniforms, but also in terms of physical separations such as separate catering facilities, private parking areas and

offices, and so on. For the company, those who were not workers were considered "employees". These were prevented from joining the unions. This was not a problem in itself because employees would perceive joining the union as a loss in their status.

There was a permanent conflict between the employees - especially supervisors - and the workers. This conflict was mediated through the intervention of the union, with professionals from the personnel department. The union was in touch with unions from other companies in the same manufacturing area, and indirectly, with regional and national unions.

In the production lines different managerial styles were in place. These were directly influenced by the section manager's personal preferences, the importance of the production process involved, the types of machinery, the presence of union leaders, and so on. From the most paternalistic style in the most sensitive areas, to the most autocratic where workers more easily replaceable or in short contracts, could be found, side by side, as one walked along the factory floor. The same could be said for payment schemes, benefits, bonuses, and other monetary considerations.

In other departments, differences were also noticeable. In the marketing and sales departments individuals were expected to dress smartly and were highly educated, preferably bilingual, since they were in direct contact with national and international customers. In the finance department, the director

made women wear skirts and men ties for no other reason than to stress their status, even though they were not in touch with the outside. These departments had offices in a separate building with private catering facilities; these were shared with those in personnel and the engineers.

In personnel, the lawyers and those in charge of payroll were very formal and their offices were closed to the workers unless it was strictly necessary. Those in charge of the welfare of the workers were expected to mingle with the workforce, their offices were open to almost everyone, and a casual code of dress was in place. The engineers had offices whose size reflected their status. The junior engineers were asked to wear the same uniform as the supervisors, and had offices close to the production lines.

According to their status individuals were addressed differently. The workers were addressed by their family name; the supervisors by their title, Mr/Miss/Mrs, followed by their family name; the junior professionals were address by their professional title, followed by their family name. Those in senior positions were addressed as "Doctor", regardless of their professional title.[91]

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[91] Although I am aware of the influence of particular idiosyncrasies on this picture of organisational life, I do not believe that the basic relationship between managers and workers varies substantially across the different manufacturing organisations in the West.

Between the workers and the supervisors there was a tangible tension. The workers perceived the supervisors as spies who were constantly trying to find out how the workers performed their tasks in order to tell the engineers and the management. These, in turn, were in charge of designing more efficient production techniques in order to minimise idle time, to take training away from the most experienced workers, and to make experienced workers less indispensable. The tension rose to its climax every time a new negotiation between the company and the union, to improve working conditions and salaries, was approaching. Even though the efforts of the engineers and the management were to design better production processes, we all knew that on the shop floor things were done differently. Curiously enough, when the workers decided to follow those procedures "to the letter", especially to pressurise the management when a difficult negotiation with the unions was underway, tasks seemed to arrive at a standstill, and the production output was worse than ever. Working to the rule was what management both dreaded and required.

There was also a large group of workers in charge of the final inspection of products before they were sent to the customers. It was accepted that a large proportion of products would be rejected. The quantity of imperfect product was perceived in some workers' quarters as a sign of strength, and its variation was perceived as a visible result of the general climate on the shop floor by the management. As anyone who has worked in industry knows, the cost of inspection and rejects constitutes a heavy financial

burden that is transferred to the price of the product. It is also clear that supervision is very ineffective since workers always find ways of neutralising any effect it might have on increasing output. Finally, financial incentives to increase output have limits, and when used too frequently they constitute a heavy financial cost difficult to downscale without producing resentment. Other motivators have also a limited effect once their novelty wears off.

For the engineers and the management too, the situation was very complex. They were treated differently in terms of working conditions and paid over time, bonuses, and other material considerations. Those closer to the production lines felt that they enjoyed less favourable conditions than those in managerial positions. It was often the case that experienced workers were earning more than some engineers and junior managers. For the senior management, issues such as stress-related leaves, flexible hours, training outside the company and further study were already in place. It was very often the case that engineers and junior managers were constantly looking for jobs in other companies in order to avoid dead-end careers, and in order to improve their salaries, if a promotion was not in sight. In sum, if workers saw the control of the production output as a sign of strength, the engineers and junior management assumed their own work as temporary. They would try to do their best to avoid as much industrial unrest as possible as a way to get a promotion, or until they could find a better job elsewhere.

After a few years working for this factory, and following the route of many of my colleagues, I moved to a similar company working in the Human Relations Department. The title of this department was a direct consequence of the managerial discourses of the time and it was supposed to help to disseminate the human relations school's ideas throughout the organisation. From this position I was able to see things from the other side of the barrier, to make sense of some of the complexities I found on the factory floor. In general, I noticed that some of the contradictions that I had found as a production engineer were the product of various and different managerial approaches that were in place.

On the one hand, the organisation framed its relationship with the shop floor workers in terms of Taylor's scientific management. On the other, those working in junior managerial positions were treated according to the Human Relations School. For the top management there was a mixture of the two. For them a great deal of consideration was placed on bonuses and management by results, and at the same time there was a very strong emphasis on job-redesign, leadership, motivation and so on. When the circumstances showed it appropriate, different aspects of either scientific management or human relations values were temporarily applied in either of these groups. The general goals of this department were to control the workforce, to reduce payroll cost, to retain high calibre managers, and to neutralise factory unrest by satisfying the unions. There was no question regarding the methods that could be used to achieve these ends, as long as

they were within the law, were not too expensive, and did not upset the union.

Within the department, there were two sets of professionals. The first was comprised of lawyers and statisticians who were in charge of contracts, salary scales design, payroll and incentives, and who dealt with problems with the unions and workers from a "hard" perspective. They were also in charge of surveillance of union activities, and intelligence gathering. Psychologists and other social sciences professionals, who were in charge of selection, motivation, leadership, and training courses for managers, comprised the second group. Those two groups had few common interests had decided "not to step on each other toes", in order to co-exist without friction. However, they will act on a common front when a new item of negotiation with the unions was approaching, or when industrial unrest was perceived as imminent.

A series of events was to change forever this picture of factory life. These events had been taking outside the factory boundaries. Amongst those, and probably most significant, was the gradual abolition of government protectionism and the emergence of open international markets for goods, machinery and capital. Because of this phenomenon, machinery and production processes became standard world-wide and easily accessible. The free movement of capital implied that competitive returns had to be offered if it were to be retained within national boundaries. These new

conditions resulted in the need to pay more attention to the worker and his/her productivity, as it became the only real difference for international competition. Another factor that must also be noted was the superb quality of the products that were coming from the Far East, at very competitive prices, and started to inundate other national markets. This was perceived as a very tangible threat. Finally, there was the emergence of a new type of knowledge that related the history of these successful Far East multinationals.

Certain books, then increasingly flooding management courses as well as airport lounges, were part of wider marketing techniques boosted by the presidents of those companies. Although they were carefully crafted to show the wonders achieved in those corporations, they were perceived as factual, highlighting the path to follow if a company were not only to succeed, but also even to survive in the new global market. These books produced, amongst other trends, what later was known generically as Total Quality Management. Simultaneously, they also boosted the emergence of the quality "guru" and/or quality consultant.[92]

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[92] The emergence of the quality consultant and its impact in business and government organisations constitutes a topic for further research. This could investigate the way consultants serve and reinforce certain interests and practices, and their role in spreading business theories and practices to other areas of the social body.

As with scientific management, the idea of Quality Management originated long before it became widely known.[93] It was initially developed by Shewhart in 1931 while he was working for A&T Bell Laboratories.[94] His work has been regarded as the milestone in quality management by later gurus such as Deming[95] and Juran.[96] However, Shewhart's ideas, based on statistic methods, could not be widely applied because of the resistance offered by the unions in North America who saw them as another attempt to implement scientific management. His ideas had to wait for a new type of worker and a new industrial environment to be found for them to be put into practice. Japan provided this new environment after the Second World War, and the Japanese worker who was eager to help in the rebuilding of Japan's shattered industry became the perfect target.

After the war was over, Japan found itself with no industry, with an unemployed work force, with no colonies to provide raw materials, and with no means to provide for the basic needs of the population. As part of the

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[93] See Flood (1993), Goetsch and Davis (1994), James (1996), Kanji and Asher (1996), and Oakland (1989) for a general introduction to TQM and its main exponents.

[94] See Shewhart (1931).

[95] Deming's PDCA (to plan, to do, to check, to act) Cycle constitutes his most important theoretical contribution to TQM. He believed that TQM was about reducing variation in the production processes. He was one of first scientists to promote TQM in Japan with great success. The Deming Award is given annually to chosen companies that have distinguished themselves in the area of TQM in Japan. See Deming (1982).

[96] Juran built on Deming's work in Japan. His main message was that TQM is a managerial function and not just the work of specialists in certain departments. He defined quality as fitness for use or purpose. See Juran (1980).

economic package destined by the West in order to rebuild their economy, many political and economic conditions were imposed. In order to rebuild their industry, a series of production gurus were brought from the US. Amongst those were Deming and Juran who revived Shewhart's ideas of statistic control. I regard them as the first quality consultants, and their success in implementing and refining Shewhart's ideas, as the origin of the quality consultant.[97]

By the late 1970s, the concept of quality management was deeply rooted in the Japanese industry. A new breed of Japanese quality gurus such as Ishikawa,[98] Shingo,[99] and Taguchi[100] had emerged. At this point it could be said that Shewhart's original ideas on statistic control had been greatly transformed. It was the result of the dialectic interaction between the initial emphasis on statistic control and scientific management (knowledge), the

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[97] It would be very interesting to look into the emergence of the quality consultant through the production of these ready-made tool-kits. In this sense, these books have been successful insofar as they produce clear-cut recipes for the implementation of TQM. I shall argue in later chapters that TSI can be perceive as a "systems methodologies" tool-kit despite of assurances by its authors on the contrary. The relationship between the quality consultant and other management consultants, and the systems consultant, is a topic for further research.

[98] Ishikawa's main contribution to TQM was the "Quality Circles" in the early 1960s. He also created many tools for problem solving (e.g. the Pareto analysis, fishbone diagrams, stratification, tally charts, histograms, scatter diagrams and control charts), that could be used by any worker in the organisation. See Ishikawa (1976).

[99] Singo's idea of correcting errors as they happen, also known as "zero defects", constitutes his most outstanding contribution to TQM. See Shingo (1986).

[100] Taguchi made emphasis on "product and process design", rather than on error correction. See Taguchi (1985).

changes in Japanese industrial hierarchy (power relations), and the characteristics of the Japanese culture (forms of self-understanding). These elements transformed the way workers perceived themselves and their relationship with their work. In sum, a new body of knowledge, power relations, and a new worker emerged. This combination would constitute the new quality culture.

The literature regarding TQM is quite diverse[101]. In general it could be said that TQM has three major components. The first, following Shewhart (1931), is the emphasis on statistical methods for quality measurement and control. Since these methods were highly complex, they were firstly used by those with a strong mathematical background, such as engineers (Deming, 1982). Later on, simplified versions were designed that could be used by supervisors after more general training. In order for these methods to be successful a constant flow of accurate information is required (Ishikawa, 1976). This presented a problem because of the resistance offered by workers to allow supervisors to gather information about their activities, present since early Taylorism, as discussed previously. This problem was tackled with the participation of the other two main components of TQM: the

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[101] During a recent visit to the University of Hull's Library, I was able to see more than a hundred books and articles related to Total Quality Management on its catalogue system. For TQM's main writers see Footnotes 93-96, 98-100.

transformation of power relations, and the transformation of workers' self-understanding.

The transformation of power relations, involves a radical change in the way the organisational structure is designed. The organisation is "flattened" since inspection is almost abolished and supervision reduced to the minimum. Supervisors become "facilitators" whose job is to train workers in the new quality tools and to help workers to solve their problems internally, instead of their being passed to the managers. In this sense, besides being trained in the new quality techniques, they are also given courses in negotiation, leadership, and other notions of human relations. These new facilitators are recruited from the leaders on the production lines. This new strategy avoids the traditional tension between supervisors and workers since facilitators are respected by the work force, and they are knowledgeable of the production processes in a way that was never possible before when they were recruited from the outside. This was due to the resistance to supervision shown by workers.[102] It also means that unions experienced a set-back in their bargaining position, and in their ability to recruit future leaders, since once a charismatic leader is identified, s/he is fast-tracked for a facilitator position. Once a worker starts training to become a facilitator s/he becomes an employee. They also have the advantage of knowing the internal culture of

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[102] This issue was discussed earlier in this chapter.

the production lines, the informal flow of information, and are able to perceive changes in organisational climate even before it becomes apparent to the managers. This strategy also breaks one of the former barriers in the organisation between the former supervisors and the workers. However, for these changes to be meaningful they require a change in the way workers perceive themselves and their relationship with their work. This change constitutes the third component of TQM, as follows.

Within the philosophy of TQM, strong emphasis is placed on workers' relationships with their peers, their managers, and their jobs.[103] This involves a co-ordinated strategy to develop a set of corporate values and mission statements to incorporate workers as members of the organisational "family". All policies that emphasise the differences between workers and the employees are scrapped. Workers are now called "collaborators". Physical divisions are abolished in terms of catering facilities, and codes of dress are changed so everyone has to wear if not full workers' uniform at least a jacket or another item that symbolises that new era of equality. Open plan offices, with free access for the new collaborators, becomes the norm in many areas. Everyone is addressed by his/her first name. The team of lawyers, payroll specialists, and other personnel that handle confidential data - especially

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[103] Although the reader may find some of these changes explicitly suggested in the TQM literature, in these paragraphs I will refer to the *actual policies* that were implemented in the companies I worked for. It has not been possible for me to differentiate from the changes suggested in the TQM literature, and those developed *in situ*.

regarding union activity - leave the factory for outside corporate premises. They become external advisers to the social scientists who are the visible leaders of the Human Relations Department. Short-term workers become permanent collaborators boosting a sense of job stability and security. In terms of the relationship with workers in other companies things also change. Corporate bulletins portray them and their companies as the "enemy" since their success threatens the company's market share and therefore jobs. Any loss in market-share is portrayed as a gain for the enemy and it is widely publicised. As a consequence, co-ordinated union action between different companies in the same manufacturing area experiences a serious set-back.

Internally, collaborators are gathered in teams alongside the production lines. These new groups are made responsible for the production output. Their results in terms of quality output (i.e. percentage of product rejects), are widely publicised and rewarded through a new set of corporate rituals and quality awards. Individuals are made responsible for their contribution and they are helped to self-monitor their work through the new quality tools. The information is gathered in computer terminals for everyone to see. The management can now rely on accurate information that is widely available and constantly updated. Errors can be easily traced not only to the group but also to the individual. A new sense of pride for the line production output is promoted. Bonuses are replaced by improvements in the physical conditions and in freedom for workers to implement some changes. Since short-term

workers disappear a group has to adjust to cover for sick-leaves and holidays. This implies that absenteeism is reduced by peer pressure in order to maintain quality output, and that workers have to be trained to perform multiple tasks. Production knowledge is no longer the property of specific individuals. Some degree of competition is promoted amongst the groups, which results in improvements and stability in the quality output.

All these changes imply training: not only training in different tasks as mentioned above (quality tools, data gathering, and production processes), but also in the new corporate values. The training is not confined to the factory floor but it involves everyone in the organisation. Initially, external quality consultants give training. Workers do not perceive them as a threat since they come from the outside and they seem to have a new vital "neutral" scientific knowledge indispensable for the organisational survival, and therefore for their job security. The training in interpersonal relations, negotiation, and the new human values is also portrayed as helping workers to improve their lives and to better themselves as individuals. The cost involved is widely advertised as the corporate commitment to human values and the improvement of workers' working life. This commitment is even more altruistic in times of financial difficulties and when severe threat from the competition is imminent. After the initial phase, training is conducted internally by the facilitators, and especially trained individuals from the human relations department who become internal consultants. The external

quality consultants do not disappear altogether. They remain as advisors helping the organisation to monitor the overall success of the programme.

Mobility between companies almost disappears since it is widely agreed that the new recruits should be very young and inexperienced individuals - both collaborators and engineers - who are not "contaminated" with the old practices, and can be educated according to the new corporate values.[104] All this training has to be done outside working hours so production lines are not affected. In order not to increase paid over-time, training is portrayed as an opportunity to improve one's life, the success of the group, the survival of the company, and therefore to maintain job stability. Instead of paid over time, money is invested in providing new corporate training facilities, extra meals, free transport, and some trips outside the company to attend quality courses and group activities. To avoid adverse pressures coming from the collaborators' relatives, families are often invited to visit the company, and are present at small ceremonies where "quality awards" are given to the successful groups. Bulletins, highlighting the threats posed by other companies' successes, and the achievements of individuals and groups, with full pictures of those involved, are also distributed by post to their homes. Finally, the possibility for collaborators to buy the best company products at

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[104] As a personnel manager I found that young people were not only easier to train, but also more willing to act according to corporate policies and values than older workers who had been exposed to different working practices.

greatly reduced prices becomes the norm. The collaborator is no longer just the producer but also the consumer of the company products, and the sense of pride and achievement is extended to their private lives.

All these processes involve long-term commitment from the management: that is, a large initial investment. However, as the quality output increases, the net result is a rise in profits and a reduction of industrial unrest. Some of the long-term financial incentives for the company can easily be seen as follows:[105]

First, the organisational structure is "flattened", reducing the overall payroll. Differences in salaries are reduced since all workers are training to perform many tasks along the lines. Absenteeism is drastically reduced and its cost is absorbed by the working group and not by the company.[106] The need for a large number of inspectors almost disappears. Waste is reduced since the few faulty products are extracted before they reach the end of the line. Supervision is not needed to the same degree. The workers do all the data gathering themselves. The management has accurate and up-to-date data, to design future corporate policies. Unions suffer a serious set-back since in

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[105] Although the TQM process undertaken at the organisation I worked for was considered a success, we must remember Ackoff's statement regarding the dubious nature of the wide-spread success claimed by the "quality" gurus. See Footnote 48.

[106] As stated above, I am writing from my own working experience as a production engineer and as a personnel manager.

the new language and the new practices the conflict between workers and the management disappears (at least is less visible),[107] and their best leaders have now become facilitators (employees). Finally, the workers' commitment increases, reducing resistance to any change in working practices.

Employees go through a very similar process. As mentioned above, training is a very important aspect of a quality programme. In this case there is a stronger emphasis on softer aspects such as leadership, motivation, negotiation, meeting management, and quality culture. However, those in senior positions who regularly have to meet the shareholders find themselves in a very peculiar situation. They are expected to behave towards those in lower ranks of the organisation according to the new quality principles, while their own jobs are measured according to very hard indicators such as net efficiency and rise in profits. Furthermore, it becomes quite evident than the senior managers who produce good financial results, rather than being heavily involved in the new culture, are those who get the promotions and the bonuses. This is especially important if one takes into

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[107] The role of language (and the images it evokes) in the creation of new forms of self-understanding constitutes a topic for research which would involve a detailed revision of Foucault's work on the subject. See for instance Foucault's *The Order of Things*, which according to Bouchard (1977) "concerns the short history of Western man's infatuation with his language, the possibilities of constructing a language capable of fully representing the world." (p. 16). See also the papers edited in Bouchard's *Language Counter-Memory, Practice.*

account that the successful implementation of a quality programme, according to the literature, takes on average from seven to ten years. Shareholders are not so patient.

Regarding Foucault's ideas, TQM can be regarded as a discipline, as an increasingly better invigilated process of adjustment - more and more rational and economic - between productive activities, resources of communication and the play of power relations, according to a particular formula. In terms of Foucault's three-dimensional model of analysis, the dialectic interaction between different bodies of knowledge (managerial discourses, including TQM itself) and power relations, has been clearly illustrated. These dimensions simultaneously interact creating a new individual, different according to the circumstances of a particular organisation, but increasingly similar in the way s/he perceives him/herself, his/her relationship with his/her job, and his/her relationships with others.

Looking back at the complex organisational reality I had to confront when I first joined a manufacturing company, and the changes I witnessed after TQM was successfully implemented, there are some issues I would like to highlight. The first is that TQM considerably reduced the inconsistencies found when different management models are simultaneously implemented. This is not to say that these different techniques were replaced by TQM; on the contrary, TQM represents a framework within which those models reinforce each other, avoiding any internal contradiction and therefore

reducing workers' resistance to management policies. Secondly, the barrier between management (as those who exercise power), and the workers (those who resist or are affected by power), is transformed. TQM embraces all areas of the organisation affecting every individual regardless of his/her rank in the organisational hierarchy. The basic relationship between workers and capital has not necessarily been altered, but rather, TQM, while helping individuals to better themselves in their public and personal lives, constitutes a new official discourse. The effect of the official discourse is to mask, with an aura of equality and democracy, those micro-techniques of domination present in organisations.

As I have mentioned before, one important outcome of this process is the creation of new knowledge. This is achieved through the production of a carefully crafted account of the company's success story. These accounts can be understood not only as part of wider marketing campaigns to increase the company's profile, brand awareness, and consumer's confidence; the value of this new knowledge must also be seen in terms of the refinement in techniques of implementation, in terms of the spread of the "quality culture" outside the organisational boundaries, and finally, in terms of the production of new consultants or gurus. This process of colonisation of other social arenas induces society to produce individuals who are compatible with current organisational values, and who can attract

international capital and investment. Recently, we have witnessed an increasing number of books that try to extend TQM to schools,[108] health services,[109] government agencies[110] and even entire countries (such as Malaysia) have embraced TQM as a model for social planning.[111]

4.7 Conclusions.

As I have previously illustrated, during this century the concept of the "worker" has gone through a continuous process of re-creation. Firstly s/he was perceived as a replaceable automaton in constant conflict with his/her employers. Later s/he was conceptualised as a "social" being in search of security, satisfaction, solidarity, communal ties, and so on. Then, as a "citizen", for whom the work place was an arena of democracy and co-operation, where the values of society at large were extended, supported, and defended. Later on, s/he was characterised as part of the "socio/technical interaction" that defined working relations, and in which technology did not determine the relations of work. More recently, s/he has

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[108] See Davis and West-Burnham (1997), Greenwood and Morgan (1993), Sallis, (1993), West-Burnham (1992).

[109] See Joss and Kogan (1995).

[110] See Morgan and Murgatroyd (1994).

[111] The impact of TQM in areas such as education, health, and social planning, from a Foucauldian perspective, constitute topics for further research. The aim here could be to demonstrate how the implement of certain practices brought from the private sector transforms the way teachers, health professionals, and civil servants perceive themselves, how it affects their working relations, and the way they relate with their jobs.

been seen as the "individual" who must master his/her relationship with him/herself and others, while in search of financial rewards and recognition. Finally, s/he has been defined as an "individual" for whom work is not only a "natural" aspect of his/her life, but also an indispensable source of fulfilment both as an employee and as a consumer.

This creation and re-creation of the conceptualisation of the worker has been accompanied by a profound transformation of the organisational structure, from one where the owners were a visible part of the day to day affairs of the factory, to an organisation owned by "anonymous" and ever changing shareholders. At some point it has even been said, as in the "quality" literature of the 1980's, that the "real" shareholders were either the customers or the employees. These changes have had a profound effect on the relationships of power within the organisation: that is to say, in the official chain of command and the not so visible organisational "politics".

The subjectivity of the workers, i.e., the way they view themselves and others, has also changed dramatically. Firstly, it is as a result of the external historical conditions that have triggered some of these organisational changes (such as the wars, recessions, periods of economic and social prosperity, and so on). Secondly, it has also changed as a product of technological developments, from the monotonous and very physically demanding jobs of the early days to hi-tech and increasingly "virtual" jobs. The third way is through the changes in the way power is exercised, from a

direct, open, and external style of management, to the self-motivating, self-managed styles of the 1980's. Finally, there is the workers' increasing purchasing power that targets and transforms them into consumers.

However, the same "basic working relationship" from the days of Taylorism and Fordism still remains unchallenged. Human beings, conceptualised either as workers, citizens, individuals, shareholders or consumers, still engage in a very similar contractual relationship with employers. Workers engage in an activity that is created, defined, and controlled by those representing the interests of the owners.[112] These might be anonymous shareholders, the taxpayer, a group of consumers, or the like. However, workers' jobs are created and taken away according to the same economic imperatives of early Taylorism. Now it might be called down-sizing, re-structuring, or something else, but its effects are very similar to those engendered by the foreman in Taylor's days, who, "in the interests of productivity", fired a worker, or of the capitalist who moves the production plant to a more profitable site or country.[113]

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[112] This statement does not imply that managers themselves are outside power relations.

[113] Regarding the relationship between Marx and Foucault, Cohen and Arato (1992) argue that "Despite important differences, Foucault's analysis of the specificity of modern society builds on a core insight of Marx: Modernity involves the emergence of a new and pervasive form of domination and stratification. This is not to suggest that Foucault operates within the Marxist universe of discourse; indeed, the dialectic, economic determinism historical materialism, the base/superstructure model, the concern with ideology, the strategy of immanent critique, and the focus on class struggle are all absent from his work" . (p. 257). In connection with this comment they also point out that "As the most important of Louis Althusser's students, Foucault, of course, is well versed in Marxism. However, he rejects both humanist and structural versions of the theory and sees Marx not as a radical break

The fact that the "basic working relationship" remains unchallenged explains, to a large extent, why the tension that emerged during the early days of Taylorism between the "economic" and "humane" aspects of the worker has not been solved. In the early days of management, this tension emerged between those like Taylor and Ford who concentrated on the "economic" man metaphor as the framework for the interaction with the workforce, and the early philanthropists who were concerned with the effects of this approach on the life of the workers. Later on, and as a re-evaluation of the period in which philanthropic concerns were organised around the metaphor of the "socio-emotional worker", the tension between the "economic" and the new "psychoanalytic" man became evident. More recently, the human relations' paradigm re-emerges, arguing again for the need for a "worker-centred" attitude.

The purpose of this very brief discussion is not to illustrate the "progress" in management theory and practice, or the lack of it. It is evident that the worker of the 1920's was very different from the one currently existing in the 1990's. It is also clear that working practices have changed, in some ways benefiting the worker, and in some ways at his/her expense. What is

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with modern (nineteenth-century) thought but as one element within it. As he puts it in *The Order of Things*, "Marxism exists in nineteenth-century thought like a fish in water: that is, it is unable to breathe anywhere else (p. 262)" (p. 663). See also Michel Foucault, *Power/Knowledge*.

important for this research is to highlight the way systems of knowledge, power relations, and the subjectivity of individuals interact, creating and recreating each other. The theoretical contradictions and tensions that have been pointed out illustrate, on the one hand, how all these techniques of human government interact and support each other, how knowledge is created according to contingent circumstances and without a blue print or master plan. On the other, it shows that theoretical coherence is not one of the concerns of management theory and practice, but rather, implicitly, how to adjust to contingent historical circumstances so the balance that exists within the "basic working relationship" is maintained.

As discussed previously, the effect of the discourse of Management has been to mask the systems of micro-power present in organisations so that worker resistance to managerial interests could be overcome, whilst alleviating the adverse consequences of managerial practices. If workers' commitment could have been achieved during the early days of Taylorism, it is quite clear that many of the theoretical developments discussed would never have seen the light of day, although others might have been created to respond to new external conditions.

However, and in accordance with the Foucauldian framework of this research, it is of paramount importance to discuss, even briefly, the connections between management theory and practice and wider systems of "government" present in modern Western society. In this context, some phenomena can be identified. First, the role of the State has evolved from a "laissez faire" attitude; to a concern for the workers' well being as part of the "stock" of the nation. More recently, the State has established a contract with every member of society in terms of unemployment payments and other social security benefits (so that the individual is in one way or another part of a "working" relationship throughout his/her life). This role has been boosted by the gathering of vast amounts of data regarding all aspects of human life and the development of theoretical frameworks that have given meaning and use to the data obtained.

Two major historical events have been disruptive enough of workers resistance in order to allow for an almost unchallenged experimentation with new managerial techniques, the refinement of old ones, and politically to align management with the values of democracy and freedom: the two World Wars. As discussed previously, the experience of war represented a period of total consolidation of the networks of power that linked the objectives of the government, those of the industrialists, and the subjectivity of the individuals involved. Never before had the State and Industry the opportunity to gather information about individual's differences and individuals' subjectivities at a pace and on the scale of the war years. Improvements in

production and distribution techniques, the selection of workers and soldiers, the fitness of the population in general, and the effects of propaganda on public morale were amongst the multitude of topics of research and intervention during the wars. The knowledge and techniques developed were regarded as vital during the war effort and, as a consequence, their use during the post-war years was initially unchallenged.

It could be argued that what we have witnessed during this century is a colonisation of wider arenas of the social body by the logic of productivity, efficiency, and profit.[114] However interesting an exploration of this phenomenon could be, it would provide only a very partial picture of the interaction between management theory and practice and society at large, while masking wider processes of normalisation that have been taking place since the eighteenth century. Work is not a twentieth-century development, but the globalisation of the working experience, and the central role it plays in the lives of individuals and in the construction of the self is without doubt one of the major developments of this century.

Furthermore, if it could be argued that the State has been instrumental in the development of the modern working organisation, the opposite is also the case. The theoretical and practical developments in contemporary working

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[114] For a discussion regarding the differences between Habermas and Foucault see previous chapters.

organisations have played a very important role in the definition and normalisation of human life by the State. In this latter sense, organisations have provided the State's "government" with new tools, data, and techniques, that have reinforced the normalisation processes that started with the creation of the prison, the asylum, the clinic and the school.

Management, in conjunction with the other "sciences of man", have provided very powerful and practical discourses about the nature of Man: what is normal, desirable and necessary. Again, these images do not correspond to any pre-determined master plan for the State's "government": they all continuously interact, cancel, counterbalance and reinforce each other, while transforming and legitimising the working experience, the construction of new networks of power relationships, and the subjectivity of the individuals in society.

In the next chapter, I shall attempt to provide an account of some of the historical conditions that produced Operational Research and Soft Systems Thinking. This exploration will highlight certain connections that can be found between Operational Research and Soft Systems Thinking, and the themes discussed in this chapter. In Chapter 6 I shall explore the origins of CST and its connections with recent approaches such as TQM.

Chapter 5: A Critical History of Origins of Operational Research and Soft Systems Thinking.

5.1 Introduction.

It would be useful to summarise very briefly the analyses that have been carried out in the previous chapters in order to describe the aims and scope of the present one.

First, a general exploration of the genesis and development of critical history was provided in order to form a context for Foucault's work. Then, a detailed discussion of Foucault's ideas, and in particular of his general critical project "the ontology of the present", was constructed. Based on this analysis, a Foucauldian review of some themes present in the history and development of the management sciences in the twentieth century was undertaken. It was explained before that this review was necessary in order to explore the character and some of the implications of the relationship between the management sciences and CST. In the context of this exploration, I shall attempt to construct first an account of some of the conditions that produced Operational Research (OR) and Soft Systems Thinking and their relationship with the management sciences.

The historical account that will be undertaken is radically different from the traditional historical recollections such as those provided by Keys (1995) or Jackson (1991a). The main difference lies in the fact that traditional accounts are focused on the chronological identification of key figures in the field and their contributions. In contrast, in order to examine some issues in the development of systems thinking, I shall look into the conditions of its production, the contexts within which its central problems are defined, and whose interests are incorporated.

As will be shown later on, I do not wish to imply that systems thinking, and CST in particular, have been completely blind to these issues. In this sense, I shall highlight several accounts that try to deal with some of them in one way or another. However, they all share the underlying interest of contributing to the on-going discussion of how to "improve" the discipline. This interest will constitute another key difference with this and later chapters. Certainly, I do not intend the opposite, that is, to argue for their dismissal of systems thinking on critical grounds. The position of being *pro* or *con* systems thinking constitutes a "blackmail" that I strongly oppose - similar to the other forms of "blackmail" so strongly contested by Foucault and which have already been discussed.[115]

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[115] See, for instance, Page 63.

There is another issue that is important to clarify at this point. Since my main focus of research is CST, which has been produced almost entirely in the UK, I shall concentrate on the developments leading most directly to its production. That is to say, from the numerous "schools" of systems thinking that have emerged during this century both in the UK and overseas, I shall concentrate mainly on those that have been produced in this country. As a consequence, I shall explore the ideas that have emerged within what is known as Operational Research and Soft Systems.[116]

5.2 The production of the Operational Researcher.

Without getting immersed in the debate of whether operational research (OR) was first conducted in the late 1930s,[117] just before the outbreak of the Second World War,[118] or during the Second World War,[119] it is clear that the presence of scientists has been a constant feature in modern organisations since the early days of what Roll (1968) calls the "machine industry".

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[116] This is a very important issue. Since it would be very difficult to explore comprehensively all the different strands of systems thinking that have emerged in this century, I have decided not to consider some very influential schools of thought such as Cybernetics, Rand-style systems analysis, and Interpretive Systemology. These strands of systems thinking should be considered if one attempts to produce a critical history of systems thinking in general. I acknowledge that my selection could be very controversial according to the research interests and the background of the reader. However, I believe that the theoretical framework provided in the first chapters of this thesis could be used to conduct such other analyses.

[117] See Ackoff (1979a), and Rosenhead and Thunhurst (1982).

[118] See Trefethen (1954), and Keys (1995).

[119] See Churchman, et al. (1957), and Jackson (1991a).

The relationship between nineteenth-century natural science and Taylor's "task idea" has been highlighted in the previous chapter. Furthermore, the importance of Taylorism in the development of OR has also been mentioned - although in no more than a few remarks - by Jackson (1991a),[120] Keys (1995),[121] Rosenhead and Thunhurst (1982),[122] and Trefethen (1954),[123] amongst others. What none of these authors has explained is why at a particular moment these scientists became neither part of the existing managerial class, nor part of the emerging group of supervisors and middle management. Rather, they constituted a new independent group in charge of the research into the operations involved in the functioning of modern organisations. Therefore, assuming the identity of Operational Researchers, let us examine briefly some of the official accounts of the origins of OR.

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[120] "The traditional approach was based upon Taylor's scientific management, Fayol's administrative management theory, and Weber's bureaucracy theory, and encouraged the view that organisations were like machines." (Jackson, 1991a, p. 41)

[121] "...Efforts to use a scientific approach to aid decision-makers and managers were not new. Babbage had attempted to introduce these ideas into the UK in the early nineteenth century, specifically in his work on the economy of machinery and manufactures, and Taylor's "scientific management" was a clear precursor of OR. (Keys, 1995a, p. 3).

[122] "...This proliferation of specialisms can be seen simultaneously as elements in a Taylorist offensive, and as managerial tactics aiming to head-off the workers' passive or active response... Operational Research is one of these management sciences. (Rosenhead, and Thunhurst, C., 1982a, p. 237)

[123] "...The whole field of management consulting, which has much in common with operations research, had its beginning in the last decades of the nineteenth century, when such pioneers of scientific management as Taylor, Gantt and Emerson started their work...." (Trefethen, 1954, p. 68)

Before the Second World War, OR had played an important role in what Rosenhead and Thunhurst (1982) call the "tactical" aspects of management in most productive and public organisations, i.e., stock control, equipment management, vehicle routing, scheduling, inventory, and the planning of daily activities. These uses can easily be framed within the development of scientific management and what we called in the previous chapter "the creation of the economic man".[124]

However, this important work is rarely mentioned in the official accounts of the origins of OR. To shed some light on this issue, let us see what some of the most important practitioners of OR during the war have to say about its origins.[125]

Sir Derman Christopherson[126] (1992) argues that OR was originated in 1935 when a group of researchers from industry and academia was appointed to conduct certain projects. Amongst those, it is worth mentioning shelter

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[124] In this sense, Churchman, Ackoff and Arnoff (1957) point out: "Along with the increased differentiation and segmentation of the management function came increased attention by scientists to the problems generated in the various functional divisions of industrial operations. For example, scientists applied themselves increasingly to production problems and out of their efforts arose several new branches of applied science: mechanical, chemical, and industrial engineering, and statistical quality control. In other functions marketing research, industrial economics, econometrics, personnel psychology, industrial sociology, and similar applied scientific disciplines appeared". (p. 132)

[125] I must say that these accounts are retrospective, and that some of them were especially prepared for established OR Conferences and Journals. This is to say, they are aimed at helping in the construction of the present of OR either by re-emphasising official accounts, by re-interpreting past events, or both.

design, protection against fire and gas, highly explosive weapons, the nature and scale of the air attacks and the number of civilian casualties to be expected. In order to frame these activities within the existing government structure, the Ministry of Home Security was created. Its name, as he also notes, was intended to suggest a general atmosphere of calmness and peace to the population, even though the Ministry's work was intended to prepare the government for the possibility of war. After these studies were conducted, it was assumed that the group would be disbanded. However, their work continued in other areas of the armed forces in order to give advice in offensive operations:

> It could reasonably be argued that, at this stage, the prime purpose of the Ministry of Home Security had been achieved, and the party could be disbanded-certainly there was no more money for developing shelters. But *someone somewhere* must have decided that the Department's knowledge and experience of explosives could still be useful, and so for the rest of the war we provided an advisory service and some experimental facilities, for primarily offensive operations. (Christopherson and Baughan, 1992, p. 36, italics added)

On the same topic, The Committee on the Next Decade in Operations Research (CONDOR), whose report was submitted in 1988, assumes that OR started when a group of scientists were called to help the armed forces

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[126] He was an engineering graduate who joined the Research and Experiments Branch, a Division of the Ministry of Home Security, in 1941.

in problems related with new radar equipment. In clarifying the aims and scope of this research, a clear distinction was drawn in order to define OR:

> [A]lthough the exercise had again demonstrated the technical feasibility of the radar system for detecting aircraft, its operational achievements fell far short of requirements. He [A. P. Rowe, head of the research group involved] therefore proposed that research into the operational - as opposed to the technical - aspects of the system should begin immediately. (CONDOR, 1988, p. 269)

A different account, this time given by Professor E. C. Baughan[127] (1992), emphasises the creation of the Operational Research Section (ORS/CC) of Coastal Command with researchers from different branches of the natural sciences:

> Operational Research was then new, so the background of this 'First Eleven' is interesting. In all there were three physicists (and one physical chemist), three communications experts (one Australian), four mathematicians, two astronomers (both Canadian), and about eight physiologists and biologists, including an expert on the sex life of the oyster! It was not clear which background was the best; our special skills were not as important as our general scientific ability. And we had visiting scientists from Canada and the USA. (Christopherson and Baughan, 1992, p. 39)

What is important to highlight here is that these scientists assumed their work was pioneering in nature, even though, as we have shown, what they were doing bore striking similarities with what had already been done in

industry and in the armed forces for a long time. They were applying methods from the natural sciences to solve practical problems that were defined externally by the management of these organisations.

This attitude towards their work, which in itself constituted a break or discontinuity with the past and with other practitioners, was instrumental in producing the "origins" of Operational Research. Let us try to imagine some circumstances that could explain this phenomenon. First, it could have been the case that these researchers, coming from the natural sciences, were unaware of the research that had already been done in industry and other areas of the armed forces. This could be a plausible explanation in the early stages of their work. However, one could think they would have eventually encountered existing research into similar topics.

Second, it could be said that because these researchers came from traditional and very highly respected areas in the natural sciences, they considered that their work was somehow different from the research undertaken by more instrumental technicians.

Another explanation could be given if we think that this group (once directly associated with strategic breakthroughs during the war, participating in the

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[127] A former Demonstrator in Physical Chemistry who joined the "Anti-U-Boat Operations Section" of the ORS(CC) during the war.

decisions taken by the high command), [128] did not find it strategic to be associated with other researchers undertaking lower-profile work in either industry or within other government organisations.[129]

However, and following Foucault's method of historical analysis, it is not enough to identify some kind of intellectual break for it to become meaningful for the researchers involved and for their wider context of interaction. As a consequence, it is necessary to look at the historical circumstances within which the break was produced. The "post-war atmosphere" gives a very useful point of reference for this analysis, in terms of the reconstruction of Europe and the social contract established between the State and the social body in order to eradicate the conditions of poverty and inequality of the pre-war years.

As discussed in the previous chapter, the concept of "welfare" that started to take form after the First World War encapsulated the worries that came from different sectors of society in terms of improving the physical and moral state of the population. This concept had not only a philanthropic dimension, as expressed by several industrialists concerned with the poverty of the working

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[128] Such as the almost complete neutralisation of German U-boats, and the securing of naval transport.

[129] This discontinuity also highlights the start of the tension between Management and OR, a tension that will recur in Soft Systems Thinking and CST.

classes, but it also had a practical dimension in terms of providing industry and the armed forces with enough fit men to fulfil their requirements.

I believe that within these historical circumstances, OR acquired a new role by applying itself to the solution of social and political problems. This new role was needed to develop it as a discipline separate from management. To support this claim, let us take a closer look at a statement made by Ackoff (1957):

> One aspect of operations research in Britain which has always interested me a great deal is the *social vision* that characterises many of the people who have been working in this area. One of my earliest contacts with this field was in a little paperbound book, by Waddington, called *The Scientific Attitude.* In the chapter on 'Science and Politics' he discusses the possibilities of *applying operations research to the solution of social and political problems* ... This same interest was present in the address which Sir Charles Goodeve gave at Case Institute, in Cleveland, during its 75th anniversary celebrations several years ago. Not long ago there appeared in the United States a paper by the Earl of Halsbury called From Plato to the Linear Programme. The theme of this, again, was *the possibility of applying operations research to broad scale problems in social planning.* (p. 83, my italics)

This original distinction that would differentiate OR researchers from those concerned almost exclusively with the improvement of productive

organisations is also acknowledged by many other key figures such as Churchman (1979a, 1979b), Keys (1995),[130] and Jackson (1991a).

As a consequence, by shifting the central focus of OR from problems regarding operations within the system - as initially defined by CONDOR (1988) - to problems concerning the welfare of the population, OR was able to constitute a new discipline. This new focus also allowed OR to interact with other disciplines such as those involved in health and education, which had been at the centre of wider processes of normalisation in modern Western society.

Having said this, it is important to highlight that this kind of break or discontinuity did not necessarily imply a new beginning for OR. Rather, it implies a shift in the interaction between the body of knowledge that supported it, the relationships of power within which it was originally produced, and the forms of self-understanding of its practitioners.

In this context, as stated by Churchman, Ackoff, and Arnoff (1957), OR continued to be rooted within the methods of the natural sciences,[131] aimed at the solution of executive-type problems,[132] within a systems perspective:[133]

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[130] Keys (1995) acknowledges the original emphasis of OR when describing it as a "...young discipline which could enable the Western world to resolve the problems facing it and the world economy..." when referring to statements made in a series of presidential addresses in the emerging OR societies. (p. 79)

> ... O.R. in the most general sense can be characterised as the application of scientific methods, techniques, and tools to problems involving the operations of systems so as to provide those in control of the operations with optimum solutions ... [that is to say]... to executive-type problems in organisations. (p. 136)

The interaction of OR with other disciplines heavily involved in wider processes of normalisation can be seen in some wide-reaching projects undertaken in the post-war years. Amongst those, it is worth mentioning the surveys regarding the general health of the population, and patterns of food consumption and expenditures, conducted for the Government Social Survey Unit and for the Ministry of Food respectively.[134] OR was also involved in railroad and street transportation, and road building, for other Ministries. As Trefethen (1954) summarises:

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[131] "For example, most would agree that the following are the major phases of an O.R. project: 1. Formulating the problem; 2. Constructing a mathematical model to represent the system under study; 3. Deriving a solution from the model; 4. Testing the model and the solution derived from it; 5. Establishing controls over the solution; 6. Putting the solution to work: implementation." (Churchman *et al.*, 1957, p. 140)

[132] An executive-type problem involves the effectiveness of the organisation as a whole, and a conflict of interests of the functional units of the organisation. (Churchman *et al.*, 1857, p. 133)

[133] "The comprehensiveness of OR's aim is an example of a "systems" approach, since "system" implies an interconnected complex of functionally related components." (Churchman *et al.*, 1857, p. 134)

[134] "One prominent example [of the application of OR] is the Government Social Survey, organised during the war years and now a permanent government research unit. The "Survey of Sickness" which this group conducted during wartime provided the first really comprehensive picture of the general health of the population... For the Ministry of Food, the unit performed extensive surveys on food consumption and expenditures so that the effects of government food and price policies on the nutrition and family budgets of the public could be estimated in advance." (Trefethen, 1954, p. 70)

> It seems reasonable that, in any crisis situation where policies involving wage control, price control, and the rationing and control of materials are under discussion, operations research would be able to provide useful, quantitative predictions of the results to follow from various alternative measures or combinations of measures. In this connection, it would become a tool for the legislature as well as the executive in cases where the two are discrete bodies.... (p. 71)

In this context, the way these researchers perceived themselves was transformed. It moved from an *ad hoc* advisory role in charge of solving very concrete and well defined problems (with the expectation of being "disbanded" once the objectives were achieved), to that of an acting contributor to wider processes of normalisation in the post-war society. As a consequence, their work was intended to transcend the limitations set by specific projects. Operational Research was no longer a group of techniques to be used by those with some scientific training, but an activity carried out by Operational Researchers.

The following years would be spent in the concretisation of OR as a discipline through similar processes such as those followed by other disciplines since the eighteenth century; thus, with the production of its own history, the selection of techniques for intervention, the creation of new Societies, and the development of specific educational programmes to ensure its continuation and survival. Having said this, not all researchers assumed that the role of OR was confined to social planning and the alleviation of world problems. Some of them returned to the factory floor. In certain organisations they were seen as vital for the development and

improvement of productive processes, through the use of the techniques and knowledge developed during the hostilities. This phenomenon leads us to take a closer look at the relationship between the emerging OR and Management.

5.2.1 The tension between the Operational Researcher as a social planner and as a business consultant.

As discussed above, scientists had long been present in business organisations, actively contributing to the creation of the "economic man". Their work was vital in the workers' de-skilling that took place in the early stages of scientific management; it was also vital for the design of the first widespread forms of control of shop-floor operations. During the First World War they contributed to the war effort in the army (in areas such as logistics, selection, and training), and to the improvement of factory output. During the inter-war years, scientists were central in the creation of the "socio-emotional worker" through the design and analysis of experiments such as the Hawthorne studies. They were also instrumental in the first attempts to develop and implement the new concept of "welfare" within business organisations. All these developments have been extensively discussed in the previous chapter.

After the Second World War, as had happened after the previous war, many of the OR researchers moved back into industry to implement the new techniques developed during the war. However, these researchers shared with the emerging Operational Researchers a basic interest in the design of

new organisations, and in general, with the improvement and control of organisational processes. Within the emerging OR/Systems Societies they were very active members.[135] Furthermore, many large business organisations created their own OR departments.

In general, we could say that most OR Societies shared a common view regarding their emerging discipline. To summarise this perception, let us take a look at the following statement given by the British Operational Research Society:

> [T]he application of the methods of science to complex problems arising in the direction and management of large systems of men, machines, materials and money in industry, business, government and defence. The distinctive approach is to develop a scientific model of the system, incorporating measurements of factors such as chance and risk, with which to predict and compare the outcomes of alternative decisions, strategies or controls. The purpose is to help management determine its policy and actions scientifically.... (Jackson, 1991a, p. 77)

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[135] There are several accounts regarding the creation of OR/Systems Societies. "In 1954 Bertalanfy with scholars such as Boulding and Rapoport created the Society for General System Research." (Jackson 1991a, p. 49)

"In the UK the Operational Research Society (ORS) was formed in 1950 following two years of activity under the name of the OR Club. Membership grew from below 100 in 1953 to over 300 in 1957 and to ten times that figure by the 1970s." (Keys, 1995, p. 79)

"A Founding Meeting was held at Columbia University in May, and the Operations Research Society of America was formally established with its own constitution and officers, headed by Dr Philip M. Morse as President. The first number of the quarterly *Journal of the Operations Research Society of America* was published in November, 1952, the month of the first regular meeting, which attracted more than twice as many members and prospective members as the most optimistic founder had anticipated." (Trefethen, 1954, p. 73)

Along the same lines, the journal of this society, *The Journal of the Operational Research Society*, was created to "serve the largely practitioner-based membership of the ORS concerned with acting as consultants by including case studies and pieces describing the solution of practical problems" (Keys, 1995a, p. 79).

In those early days, OR started to develop, on both sides of the Atlantic, its own training programmes with the intention of positioning itself as a separate discipline:

> In 1948, the Massachusetts Institute of Technology established, in collaboration with the Navy, a course in the non-military applications of operations research. At University College, London, a course of ten lectures was given in the autumn of 1949, and Birmingham University conducted a summer course in July, 1950, on Work Study and Operational Research. (Trefethen, 1954, p. 71)

> The Case Institute of Technology held a conference in November, 1951, on the applications of operations research to the problems of business and industry and has since become the first institution of higher learning to offer a curriculum in operations research leading to the degree of Master of Science. In the spring of 1952, Columbia University presented its first course in operations research, and The Johns Hopkins University initiated a graduate seminar in the autumn of that year. (Trefethen, 1954, p. 72)

Despite their members' efforts, this was not an easy task, as Trefethen (1954) remarks:

> These early efforts are largely exploratory, for the status of operations research in relation to other disciplines is still in dispute. There are those who regard it as a new discipline for which a specialised course of training can and should be developed; others prefer to think of it as a combination

> of existing disciplines and recommend a specialist training in some one of the sciences or in mathematics, supplemented by operations research indoctrination, as the best preparation for an operations research career. As experience with courses, seminars, and on-the-job research accumulates, the position of operations research will undoubtedly become clearer. (p. 72)

Furthermore, by 1953, with the creation of The Institute for Management Sciences (TIMS), and later, in the 1960s, with the emergence of new Universities in the UK, the distinction between OR and Management teaching and practice was still less than clear:

> In 1953 The Institute of Management Sciences (TIMS) was formed with a similar aim to that of ORS and ORSA. The relationship between OR and management science was thus introduced and in many places reference is now made to 'OR/MS' indicating the extent of the similarities. (Keys, 1995, p. 79)

> In the UK ... it was in the 1960s with the introduction of a new generation of universities that management in general, and OR in particular, became a significant part of higher education in the UK. (Keys, 1995, p. 80)

Having said this, the strength of OR seemed to remain in its ability to produce very complex mathematical models and simulations which could later be applied by its practitioners in a wide range of situations, in both business and public organisations.

By the early 1970s, a process of evaluation started at the heart of OR triggered by the perceived decline of the discipline.[136] Several reasons were given to explain causes of OR's problems.[137] Amongst those, it is worth mentioning OR's narrow domain of applicability; OR's tendency to distort the problems given so they could "fit" within the chosen model, and its failure to take into account the human component of the organisation; OR's stress on quantification and optimisation, and its support for the *status quo* and those who are powerful in an organisation.[138] All these criticisms are based on a genuine desire to uncover the causes of OR's decline in order find the remedies to either restore OR's rightful status, to re-address its initial interests, or both.

Following Foucault's method of analysis, I shall not focus on the discussion of the causes of OR's problems, nor on finding other or better reasons to explain this phenomenon. Neither shall I discuss matters regarding whether

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[136] Ackoff (1979a) says: "In my opinion, American Operations Research is dead even though it has yet tote buried. I also think there is little chance for its resurrection because there is so little understanding of the reasons for its demise." (p. 161). See also Jackson (1991a) and Keys (1995) amongst others.

[137] For a more detailed discussion see Ackoff (1977, 1979a, 1979b); Checkland (1978, 1981, 1983); Churchman (1979b); Hoos (1972, 1976); Jackson (1991a); Keys (1995); Lilienfeld (1978); and Rosenhead (1981).

[138] This point is very complex because many authors highlight the issue of power in the opposite light, that is to say, that OR no longer enjoys a powerful position within the organisation, being relegated to low-profile sections and routine tasks. (e., g., Ackoff, 1979a)

or not this perceived decline has really taken place.[139] Instead, I will explore the conditions that produced this perception, the contexts in which this perception is defined, and whose interests are incorporated within it. This exploration will focus on how the relationship between OR and management evolved over time. I shall discuss how, as OR shifted its focus from social planning towards consultancy, while going through a process of de-skilling inside organisations, a new generation of practitioners was produced.

5.2.2 The decline of Operational Research.

As mentioned above, a central distinction that was instrumental in the production of OR as a separate discipline in the UK was its emphasis on social planning, and its perceived ability to contribute to the alleviation of the problems that Western society was facing after the war.[140] This was not only a theoretical interest, but it was supported by the fact that most of the "first generation" of practitioners had been personally involved in the developments that played a part in the Allied victory. After the war, they were also involved in the reconstruction and in the creation and consolidation of modern State organisations within the concept of "welfare". Practitioners also came from highly respected sciences and worked at prestigious

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[139] Hall and Hess (1978) argue instead that the decline in visibility is more a sign of institutionalised acceptance than one of real decline.

[140] The reader must remember Ackoff's statement regarding OR's emphasis on social planning in the UK. See Page 205.

universities; finally, they were very well connected to those in power in the government, industry and in the armed forces.

However, by the 1970s it was clear that consultancy was taking over social planning. This shift in the focus of OR can be seen in the type of papers that were presented at the societies' conferences, and the articles published in their journals. Most of them showed a strong emphasis on the development of new techniques and simulation models, to control and optimise organisational processes. As Ackoff (1979a) points out, an increasing number of these papers did not emerge from interventions in organisations, but were rather abstract discussions about these models and techniques. This process was also reinforced by the fact that, since the 1960s, OR has increasingly been taught in Management Schools.

This is a very important issue that must not be taken lightly. The fact that systems thinking has been taught at Business Schools explains to some extent the emphasis on business-related issues: not only in terms of the background of some of their practitioners and the case studies that needed to be developed for teaching, but also in terms of research topics and funding. More recently, the fact that research at Universities is increasingly required to be self-funded by external projects constitutes an important factor. Furthermore, the ever-increasing importance for the school's finances of teaching in high-fee programmes such as MBAs, must be also considered. Again, research that adds value to these programmes has been given

priority. Finally, the fact that these schools are assessed and rated for government funding by their relevance to the development of the management sciences must be taken into account. Funding from other sources than business organisations is especially important for projects involving community/charitable organisations that cannot provide the same level of revenue for these schools.[141]

The interaction of some of these issues produced a new type of Operational Researcher who took the agenda of the organisational consultant beyond its theoretical and practical limits. First, the emphasis on producing techniques that could be used by consultants to solve problems reached levels of abstraction and complexity that in some cases had very little relevance to plausible projects.[142] Second, the fact that these new practitioners were trained in Management Schools by academics who had never practised it,[143] and who were under some pressures their predecessors did not

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[141] The impact of Business Schools on the development and teaching of particular methodologies constitutes a topic for further research. Also, the impact of the integration of community OR research groups, as an area of research within wider management oriented research groups, must be carefully considered.

[142] "OR has been equated by managers to mathematical masturbation and to the absence of any substantive knowledge or understanding of organisations, institutions or their management." (Ackoff, 1979a, p. 164)

[143] "By the mid 1960's most OR courses in American universities were given by academics who had never practised it. They and their students were textbook products engaging in impure research couched in the language, but not the reality, of the real world. The meetings and journals of the relevant professional societies, like classrooms, were filled with abstractions from an imagined reality." (Ackoff, 1979a, p. 163)

encounter,[144] transformed OR into a group of mathematical and computer science techniques removed from its founders' intentions.[145] Finally, this third generation of practitioners did not enjoy the political connections of their predecessors, and came from a discipline that was still struggling to find its place amongst the existing ones.

A second dimension to consider is that, by the 1960s, some of the large-scale and well-defined projects in which OR was heavily involved did not have the success of those carried out by the first generation of practitioners.[146] Furthermore, the types of projects that boosted the initial growth of OR were either solved or relegated to low-profile areas of the organisation, so that they could be handled by those emerging from universities with very little theoretical and practical training in OR.[147] I would

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[144] "Such individuals, operating under the prod of publish-or-perish, are driven to select as study topics those variations and extensions of previously solved problems that will maximise the odds of producing publishable results. The practical relevance of the "problems" selected in this way need not be considered." (Hall and Hess, 1978, p. 158)

[145] The intellectual result has been, in Churchman's (1979b) opinion, that the original intention of a holistic, interdisciplinary experimental science addressed to problems in social systems has been betrayed, as OR has degenerated into little more than mathematical modelling. (Jackson, 1991a, p. 78)

[146] "Third London Airport ... It was a magnificent effort and at the same time the *reductio ad absurdum* of an approach that was never entirely viable in principle even for smaller problems and was now shown to be unworkable for a very large one. The recommendations were not implemented and various people found their own forms of disillusion in contemplating the story." (Tobin et al., 1980, p. 181)

[147] "Most of the well-structured problems have been either solved or relegated to people with quantitative skills in functional areas. Today's problems are less well-structured, more complex, less amenable to the kinds of quick, clear-cut successes achieved by early OR/MS practitioners." (Hall and Hess, 1978, p. 158)

argue that this latter phenomenon that Hall and Hess (1978) explain as "more a sign of institutional acceptance than a sign of real decline", is better understood if we assume that OR practitioners went through a process of de-skilling similar to that experienced by craftsmen in the early days of Taylorism.

I do not intend to discuss whether or not OR constitutes a craft. However, a parallel could be drawn if we understand early OR as a series of processes hardly understood by managers, developed *in situ*, and carried out by a rather small number of highly specialised individuals. In this context, these "tailor-made" mathematical models, and the results obtained when applied, became an indispensable tool that reinforced the techniques developed during early Taylorism.

By the 1960s, the situation had changed dramatically. Firstly, those one-off projects became routine activities within a more stable environment that produced more stable organisations. Secondly, the number of OR practitioners not only grew, but it was now possible to train them at a fraction of the cost and the time involved in the training of natural scientists.[148] Thirdly, the improvements in management training and the proliferation of

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[148] It is important to remember that it was not unusual to have highly respected Professors in OR groups during the war, some of whom later became Nobel Prize laureates. (CONDOR, 1988)

Management Schools, where OR was taught, produced a more competent generation of managers capable of de-mystifying, understanding, and handling simulation models. Finally, as Rosenhead and Thunhurst (1982) point out, the development of cheaper mini/micro-computers, software packages, and computer languages that facilitated the writing and experimentation with simulations, standardised OR into a commodity that could be bought and sold. It is in this sense that I have said that OR practitioners, like pre-industrial craftsmen, became de-skilled. Only those who continued developing highly abstract, or sometimes "useless" models, and those in charge of training at universities and for organisations, seemed to survive, even if their visibility and importance had been seriously reduced.

The third dimension that could help us to understand the conditions that produced this perceived crisis in OR can be found if we take a closer look at the relationship between OR on the one hand, and management theory and practice on the other. As it is widely acknowledged by most of the authors mentioned above, by the 1960s OR remained focused on concepts taken from Taylorism such as optimisation, prediction and control. These concepts were transferred to OR either explicitly, by the researchers brought into the armed forces and the government from industry during the war, or indirectly by the nature of the projects that natural scientists were given to solve. However, even though Taylor's "task idea" still represented a main interest within organisations, it is also true that by the 1960s its role had been

overtaken by the development of the ideas and techniques that produced the "socio-emotional worker".[149]

In this context, it could be argued that the absence of OR practitioners in board rooms was due to the lack of connection of its principles with the new principles of the management sciences. Furthermore, if they were present, their role was more of second-level advisors in charge of the forecasting of the implications of some possible scenarios, rather than being involved in the decisions of which scenarios to consider.

At this point, it is worth making a brief diversion, to briefly mention the research conducted by the Tavistock Institute for Human Relations,[150] whose work has been discussed in the previous chapter. This group focused (with a psychoanalytic approach), on the relationship between morale, supervision, teamwork, participation, and democracy. As in the case of OR, it intended to integrate a wide range of disciplines such as psychiatry, psychology, sociology and anthropology. There are two projects I would like to mention in order to highlight the relationship of these approaches with wider processes in society.

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[149] As mentioned in the last chapter, Taylor's "task idea" has not been abandoned in modern organisations, but rather, it has been disguised and reinforced by the development of later concepts.

[150] The Tavistock's research is considered as influential in the developments that led to the production of CST (Jackson, 1991a).

The first one is the work conducted for the Coal Industry in England (a State-owned industry), in which the Institute intervened to manage problems related to the use of new technologies and working processes, productivity, and workers' resistance to changing managerial practices. The implications of this research, which is considered as a success story,[151] would later be extended to other areas of State intervention. The second project was the Norwegian Industrial Democracy Project. This project had two main interests. On the one hand, it was intended that ideas of participation and democracy should be extended to the industrial sector in order to align industry with the ideals of the post-war society. On the other, once working arrangements in industry were transformed, it was expected for them to be transferred to other areas of the social body. Finally, as in the case of OR, despite a wider variety of projects that the Institute undertook during its first years of existence, it became almost exclusively concerned with issues regarding productivity. Some of its founding members even left the Institute to work as consultants for a wide range of business organisations.[152]

After briefly describing the Tavistock's work in order to highlight the fact that OR was not alone in moving from societal projects towards consultancy in

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[151] See Jackson, (1991a).

business organisations, let us try to summarise the discussion undertaken so far.

OR's belief that its success was due to its "neutral" scientific roots, and its ability to solve organisational problems according to scientific methods, explains its perceived crises and decline. First, it focused itself theoretically, on the sophistication of complex mathematical models. In practice, its focus was business consultancy. Second, no attention was given, therefore, to OR's ability to understand and implement the agenda of those in power in organisations according to certain managerial discourses and practices. Third, because of this assumption, OR was unable to understand and adapt to changes in management science, once its original techniques were absorbed and diffused within organisations. Finally, the discussion of wider social issues and social planning, as its founders intended it, was neglected by the increasing emphasis on business consultancy.

However, some OR practitioners did try to move on and catch up with management theory, changing their focus from optimisation, prediction and control to a language more compatible with the theory of Human Relations and the "socio-emotional worker". There are some similarities with the

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[152] The relationship between movements such as the Socio-technical systems analysis or the Rand-style systems analysis and the government, and its influence in actual social planning policies, constitutes a topic for further research.

Tavistock approach. As in the case of management theory, we will see that this shift did not mean that early concepts were replaced, but rather, they were disguised and reinforced by these new developments. Let us take a look at the production of the Social Operational Researcher.

5.3 The production of the Social Operational Researcher.

In the last section we have discussed some of the conditions that produced the perception that OR was in crisis. This perceived crisis contributed to the creation of a new type of knowledge, and a new type of systems practitioner, through a break similar to the discontinuity that originated OR itself. This process saw the emergence of soft systems thinking, and what I shall call the "social operational researcher".

However, this does not mean that OR practitioners disappeared: quite the opposite. Their mathematical and simulation models still represent an important part of the OR and systems movement in the UK. Moreover, their success in designing new or improved organisational structures and processes cannot be denied. In this context, I would argue that (along similar lines to the production of management knowledge and practice), despite the constant development of new methodological approaches, these have not replaced earlier ones. All these approaches coexist and reinforce each other despite important theoretical differences. As I have suggested, internal theoretical coherence is not what binds them together, but rather a common

set of objectives that are grounded in wider social processes and that are made tangible in managerial practices.[153]

Furthermore, if we take a closer look at the edited books that advocate the emergence of the new group as a separate entity, we will notice that some of these articles are also published in accounts that suggest that this was rather a period of revision and improvement of OR.[154] These interpretations suggest that the break with OR, promoted by the new systems thinkers, cannot be explained exclusively from within the discipline. The conditions for its emergence must be found in wider processes. Because of the close and complex relationship between systems thinking and management, let us make a brief summary of some of the developments that constituted management theory and practice up to the 1960s and 1970s.

As has been discussed in the previous chapter, the period after the development of scientific management can be understood in terms of what I

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[153] Jackson (1991a), and Flood and Jackson (1991a) amongst others have assumed that different approaches represent different paradigms and that in order to keep the discipline together it was necessary to develop some kind of accommodation for their theoretical differences. In this sense, it was thought that this kind of accommodation (complementarism/pluralism) could be achieved if some kind of common theoretical ground could be found (meta-paradigm), or if some approaches could assimilate the others as special cases (as Checkland and Ackoff thought of hard approaches). As will be discussed in detail in the next section, within the theoretical framework of this research, the question of complementarity, and ultimately, the question of coherence between the different approaches is not as relevant as these authors suggest.

[154] contrast for example Flood and Jackson (1991a), who advocate the emergence of the new soft systems thinking as a separate entity, with Keys (1995).

have called the "production of the socio-emotional worker". This period was broadly inaugurated with the Hawthorne experiments in the 1920s.

These experiments produced new methods of human control through the systematic attempt to acquire human data and to forge tools to get them, while linking human interaction to efficiency and profit. However, despite the fact that these experiments focused on the informal group, the conclusions reached produced a shift towards the individual's behaviour and his/her relationship with supervisors and managers.[155] As a consequence, there was a new emphasis on supervisor and middle management training, and on workers' motivation, job satisfaction and job re-design.

When examining the nature of the interviewing techniques used during this period, it was made clear that by allowing and encouraging workers to say "whatever they wanted", the workers' self-understanding was transformed though the interaction with power relations and the techniques employed to gather the data. This conclusion was reinforced by the observation, made at the time of the experiments, that workers seemed "to say things that they had never expressed to themselves". Although the researchers thought that this implied that they were discovering some kind of "true human nature" that could be known and mastered, I argued that this kind of statement shows

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[155] Some possible explanations of this phenomenon were given in the last chapter.

instead how, under the disguise of knowledge being discovered, there are some hidden processes though which human knowledge and human perception are created and transformed.

The central conception of workers as having feelings and needs gave rise to other developments (when reinforcing current managerial practices), such as job-redesign.[156] From the generalisations made regarding human nature the concept of motivation was produced. This was a "neutral" concept applicable to everyone in the organisation. The interaction of these concepts produced theories such as of job-enrichment that characterised the 1950s and 1960s.[157]

However, it was not sufficient to have theories about human nature and changes in managerial practices if workers did not internalise them. This is to say, it was necessary to transform worker's self-understanding so that these concepts regarding human nature could be part of it. Once these concepts and practices were internalised, it was expected that workers would act according to managerial practices through a process of free and

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[156] Job-redesign represented a transformation of Taylor's idea of job-design, while shifting its focus from external conditions to the internal characteristics of the job.

[157] Although I have provided a brief summary of the main concepts that produced the socio-emotional worker, it is important to stress that these were not just theoretical developments. Rather, these concepts were a product of the interaction between certain bodies of knowledge, changes in power relations in organisations and in society, and the transformation of the forms of self-understanding within individuals. For a more comprehensive account please refer to the previous chapter.

democratic choice. As a consequence, workers would be able to control their relationship with their work according to, and within, a general framework given by the management.

During the War, other techniques were developed in order to purposefully manipulate and transform individuals' perceptions of themselves and others, and of the societies they lived in. These techniques can be gathered together under what is commonly known as "propaganda".[158] Because of the concentration and co-ordination of power relations during the war, it was possible, and some would say necessary, to "manage" information in order to keep public morale high whilst simultaneously destroying the enemy's. However, this manipulation of fact and fiction that constituted the information given to individuals on both sides of the front lines had to somehow resemble the principles of a democratic, well-informed, and free society. These events had important consequences in the post-war society. First, the amount and the scope of the information gathered prior to, during, and after these experiments would be very useful not only for the creation of new public institutions, but also for industry. Second, these techniques, designed to engineer an individual's self-understanding, emerged with an aura of neutrality and usefulness for the social good. In this context, it was

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[158] The relationship between the development of government propaganda, and the emergence of commercial advertising (especially what is known as brand awareness) and internal communications, constitutes a topic for further research.

concluded that for the first time in this century work, democracy, and freedom were no longer opposites but different dimensions of contemporary society. Keeping this general framework in mind, let us take a look at the emergence of Soft Systems Thinking.

Within the discussion regarding the problems that constituted the decline of OR, it is possible to see a strong emphasis on placing some of the concerns that produced OR back on the agenda. Churchman, for instance, was concerned with the lack of debate regarding social issues, and the subsequent focus on the designing and improving of organisations within a realist ontology. One of his central arguments, as exposed in his book *The Systems Approach*, rests on the assumption that "the systems approach begins when first you see the world though the eyes of another". Thus, he challenges the belief that it is possible for the expert to identify the true nature of the social system under consideration, following the guidelines given by those who hire the expert. This is not to say that he believes that intervention in social systems is meaningless, but instead, that the expert must acknowledge the different perceptions and interests of those involved and affected (even his/her own). These perceptions should be contrasted and debated before the analyst attempts to build any problem-solving model. As a consequence, the validity and relevance of these models do not rest on their internal coherence, according to the methods of the natural sciences or any other, but rather on the parameters emerging from an open debate between the different stakeholders.

Ackoff (1979a), on the other hand, while arguing that organisational problems and interests have changed, describes current OR approaches as underpinned by a *mechanistic* thinking (focused on optimisation and efficiency), which was only appropriate for the problems faced at the beginning of this century. He therefore proposes that in order to solve contemporary managerial problems, it is necessary to adopt a *systems* approach around three fundamental and interrelated problems:

> How to design and manage systems so that they can effectively serve their own purposes, the purposes of their parts, and those of the larger systems of which they are part. These are the *self-control,* the *humanization* and the *environmentalization* problems, respectively. (p. 167)

As does Churchman, Ackoff assumes that what is perceived as "a well-defined organisational problem" constitutes an abstraction of the complex circumstances experienced by those within the organisation. In this sense, he wants to shift the focus of attention from the definition of a problem that can be modelled and solved to the understanding of how different parts of the organisation interact. Taking into consideration that organisations are grounded in complex socio-economic circumstances, their problems must be understood beyond the simple modelling and optimisation

of any of their parts.[159] Again, he also promotes an approach to organisational problems that takes into account the different perceptions and interests of those involved,[160] with the inclusion of ethical and moral considerations.[161] However, it is important to note that Ackoff is mainly concerned with the role consultants could play in helping managers to understand and effectively handle organisational messes, rather than in the discussion of social issues, as Churchman intended. In this sense, he does not want to abandon the mechanistic approaches, which he regards only useful to solve well-defined organisational problems. These instead, are called special cases.[162] As does Churchman, he thinks that open debate represents the means through which the design of a desirable future and the creation of ways of bringing it about is possible.

In the 1970s and 1980s, Checkland managed to put in a very useful framework some of these arguments within a new methodology called Soft

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[159] "... [P]roblems are abstracted from systems of problems, messes. Messes require holistic treatment. They cannot be treated effectively by decomposing them analytically into separate problems to which optimal solutions are sought." (Ackoff, 1979a, p. 177)

[160] "... [A]ll those who can be affected by the output of decision making should either be involved in it so they can bring their interests to bear on it, or their interests should be well represented by researchers who serve as their advocates." (Ackoff, 1977a, p. 177)

[161] "They also believe [traditional OR practitioners] that objectivity in research requires the exclusion of any ethical-moral values held by the researchers. We need not argue the desirability of objectivity so conceived; *it is not possible*." (Ackoff, 1979a, p. 174)

[162] "Systems thinking, expansionism and objective teleology provide the intellectual foundation for what may at least tentatively be called the *Systems Age*. The world-view they yield does not discard that of the Machine Age but incorporates it as a special case." (Ackoff, 1979a, p. 166)

Systems Methodology (SSM). [163,164,165] This methodology was developed at the University of Lancaster by researchers from the University's consultancy company ISCOL Ltd., and staff and students from the Masters course in "Systems in Management".[166] It was the product of an action-research project carried out mainly in business organisations.[167] This is a very important aspect to take into account, mainly because SSM was not developed first as a theory to be put into practice but, rather, through a process guided by what those organisations considered a "successful" consultancy.[168] Furthermore, SSM emerged as "systems engineering" (the methodology initially used), and was adapted in order to solve some ill-structured problems. These modifications, - i.e., SSM itself - were dictated by the problem situations and were not theory based (Checkland, 1981, p. 245). Checkland assumes that the novelty of his methodology lies in the fact that it goes beyond "hard"

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[163] Checkland's work has some similarities with Taylor's if it is assumed that Taylor managed to put together, in a very workable framework, the ideas and practices inspired by the nineteenth-century natural science and a synthesis of successful techniques developed in business organisations up to his time. This statement is intended to undermine neither Taylor's nor Checkland's contribution, but it contextualises their work within a wider arena.

[164] See Checkland (1981) for his assessment of Churchman's and Ackoff's work.

[165] For a detailed account of SSM see Checkland (1981), Checkland and Scholes (1990), and Jackson (1991a).

[166] Some of the students involved (as named in Checkland, 1981, p. xiii) became protagonists in the production of CST, as we will see in the next section.

[167] Similarities can be drawn with Ackoff's Interactive Planning and other soft approaches. Again, the importance of business related projects, and the business rationale, in the development of systems thinking must be considered as a topic for further research.

[168] The study of the evolution of systems consultancy and systems intervention - looking at the different meanings it might have according to the types of organisations it refers to - in the different strands of systems thinking, constitutes a topic for further research.

approaches in that it is able to tackle ill-structured problems, it can look at organisations in a systemic way, and it emphasises participation and debate.

However, as Ackoff (1957) says, the idea of solving problems within a reductionistic approach had already been abandoned in business organisations.[169] Moreover, Checkland's (1981) focus on the study of human interaction and perception (p. 153) has been a common denominator in management theory and practice since Hawthorne. Furthermore, the importance of employee participation in deciding and implementing changes was not new for managers. As a consequence, it is not the case that SSM provided the management sciences with a new approach, but that the action-research framework allowed business organisations to produce a methodology that was "in tune" with their principles, and contributed to the internalisation of these principles. I would say that the methodology itself, with its combination of hard data and freely-expressed individual/group perceptions, reinforced those techniques used for the engineering of individuals' self-understanding with the same aura of participation and democracy. Since the raw material used was "systems engineering" it is not surprising that the researchers assumed that the new methodology was somehow independent from management theory, and that it represented a

"discovery" that could be attributed to the systems approach. Parallel to the production of the methodology, a body of knowledge was developed to justify and to clarify the break with OR and the creation of the Soft Systems Thinker. This was brilliantly achieved in Checkland's *Systems Theory, Systems Practice.*

Within the framework of this discussion we can highlight some of the themes that produced the break with OR. First, the shifting towards a more subjectivist approach to the nature of social reality. Second, the emphasis on the importance of considering the different perceptions and interests of different social actors - either individuals or groups. Third, the emphasis on problem definition rather than in problem solving. Fourth, SSM's underlying interest in reaching consensus to maintain organisational harmony. Fifth, SSM's interest in being perceived as a means to achieve agreement, and therefore, to improve the chances of employees commitment for the implementation of feasible and desirable changes.

Regarding this last point, I would like to argue that if SSM had different assumptions from those of management theory and practice, once put into operation, they would have challenged in some way or another the existing

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[169] "There is not very much to be gained in most major industries ... by going in and looking at a production problem in isolation or looking at a marketing problem or at a financial problem or a personnel problem in isolation. The specialists have already done remarkably

organisational structures. I certainly do not believe that: if this were the case top management would have allowed these researchers to work all over the organisational structure - nor would they have paid for those studies - unless assurances were given that they would help managers to solve problems according to the latter's interests.[170]

In sum, the new Soft Systems Thinking is not the product of the theoretical discussions within the discipline, but rather these theoretical discussions emerged from the discrepancies between OR's principles and current managerial discourses and practices. Soft Systems Thinking represents an attempt to frame, revitalise, and bring up to date the practice of OR with current bodies of knowledge, power relations and ways of self-understanding that prevail in modern organisations. Furthermore, despite Checkland's claims that his approach is based on a new understanding of human interaction under the concept of *Weltanschauung*, we could reasonably

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good jobs. This has meant that ... industry encourages to deal with the interaction of industrial functions and the organisation as a whole. (Ackoff, 1957, p. 86)

[170] It is interesting to point out Churchman's experience when he joined a group of researchers hired to evaluate NASA's space programme, as quoted in Jackson (1991a), in order to understand the implications of not following the Management agenda in a consultancy project:

"During the 1960s, NASA was in the middle of the Apollo space program to put a man on the moon. It was thought a good idea to have various scholars come to study the innovative methods NASA was using to manage this complex project. Churchman's was one such group; they, however, went far beyond NASA's intentions and began asking challenging questions and debating about the purpose of the Apollo program, which from a systems point of view did not obviously contribute to the betterment of the human species. A NASA group was monitoring the groups monitoring them, and graded the approaches used in terms of both relevance to NASA's mission and interdisciplinarity. Churchman's group received an F for the first category and an A for the second." (Jackson, 1991a, p. 140)

argue that this concept represents a rephrasing of certain managerial and social discourses that have been around for quite some time. Finally, the overlapping of SSM's subjectivist approach with the objectivist approach that characterises what Checkland calls the "hard systems" techniques (since these are assumed as special cases) must not passed unnoticed. As I have argued before, this kind of assumption illustrates the relationship between different techniques developed under different historical circumstances, and within different theoretical principles. It also illustrates the masking role of the official discourse. The relationship between the different techniques is based on mutual reinforcement, despite their differences. The official discourse, in this case the theory of soft systems, masks under a new democratic and participative aura all the techniques that have been developed so far, regardless of their theoretical underpinnings, and the power relations they support.

As a consequence, I would conclude that this new Social Operational Researcher has been produced from the interaction between OR practitioners and the new theories and practices that have characterised what I have called the "socio-emotional" worker.

The scene is set to start the debate on some of the themes that originated a new discontinuity, Critical Systems Thinking. This will be done in the next chapter.

Chapter 6: A Critical History of the Origins of Critical Systems Thinking.

6.1 Introduction.

In the previous chapter a discussion of certain conditions that produced OR and soft systems in the UK was offered. The main features of these approaches were linked to particular themes that were identified in the review of the management sciences undertaken in Chapter 4 - i.e., the "economic man" and the "socio-emotional worker" metaphors.

In this chapter a discussion of some of the conditions that produced CST will be conducted. These will be linked to a selection of the most recent managerial approaches as exemplified by TQM. In this way, I shall have accomplished the critical analysis of the origins of CST, and the role of wider discourses (in this case some of the discourses of the management sciences), in its production.

There are specific issues it is important to clarify at this point. Firstly, since my main research focus is CST, which has been produced almost entirely in the UK, I shall concentrate on the developments leading most directly to its production. That is to say, from the numerous "schools" of systems thinking

that could be associated with CST both in the UK and overseas, I shall concentrate mainly on those that have been produced in this country.[171]

Secondly, since CST is a body of knowledge that is still "in production", I shall focus on the initial work published by Jackson and Flood that culminated in the production of Total Systems Intervention (TSI).[172] This choice has been made on practical grounds since almost constantly a new article or working paper on CST is published or presented at a national or international conference. It has also been made because I believe that it would be impossible, at this moment, to take the necessary distance to examine later works in a wider context, and to do justice to their authors' ideas. Having said this, I would also like emphasise that most of the work produced since then, including this thesis, always makes reference to those initial publications.

Critical Systems Thinking (CST) emerged in the late 1980s from the criticisms raised against hard and soft systems thinking.[173] It is defined by three commitments: complementarism, emancipation and critical reflection.

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[171] The critical analysis of the relationship between other critical schools, such as Interpretive Systemology and Critical Systems Heuristics, and CST, constitutes a topic for further research.

[172] For a Foucauldian explanation on why I have chosen Flood and Jackson's work as the main focus for this thesis see Footnote 14.

[173] Jackson 1991a, Flood and Jackson 1991a.

Philosophically, it could be said that although CST seems to be inspired by the work of Habermas (1972) on "human interests", it has also been influenced by the work of other philosophers such as Marx and Foucault.[174]

The discussion of some of the conditions that produced CST will be conducted in the next four sections. Firstly, we shall examine the origins of the notion of complementarism. I shall argue that this notion is not new in the systems movement, and that it fails to succeed in any attempt to solve the dispute between the hard and soft systems approaches. Secondly, I shall examine the notion of power in terms of CST's concepts of critique and emancipation. Regarding these two concepts it will be argued that they also fail to offer a clear break from soft systems, according to the criticism raised against its theory and practice. Next, I shall discuss the role that Foucault's writings have played in the development of CST. I shall argue that Foucault's writings were not only misunderstood, but also that they were applied in an instrumental fashion to fit with other social theories such as Habermas's theory of human interests.

Finally, I shall explore TSI and its relationship with current managerial techniques as exemplified by TQM. In this section I shall argue that in order to understand the origins of CST one must look beyond its commitments,

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[174] See Flood (1990), Oliga (1990), Thomas and Lockett (1979).

and systems thinking in general, to the way recent managerial techniques have been developed. I shall conclude this discussion by suggesting that CST's official discourse (i.e., its claims of pursuing of some universal human interests), masks the micro-techniques of normalisation identified in the theory and practice of hard and soft systems, and whose effects seemed to underpin the need for a new critical approach. In sum, CST will be shown as having been mainly inspired by managerial interests and practices rather than by a critique of systems thinking's theory and practice.

6.2 Looking for a compromise between hard and soft systems: "we are all equal and special ... under SSM".

As previously discussed, by the mid-1980s, the debate between operational researchers and the new social operational researchers - soft systems thinkers - was far from resolved. Their differences were not only theoretical, in terms of whether OR was or was not a special case of SSM, but they were also practical in that they both claimed success in their respective responses to organisational problems.

There are striking similarities with certain debates in the management sciences - e.g., between the advocates of scientific management and the human relations' movement. As in the case of the management sciences,

OR and soft systems thinking continued to develop their techniques and proclaim their successes.[175] As a consequence, it was very difficult at the time to see how to resolve their differences, and some researchers were even worried about the future integrity of the discipline if these disputes were to continue (e.g., Jackson 1987, 1991a).

The central problem regarding the relationship between these two types of approaches was perceived in terms of Kuhn's (1970) ideas about how scientific knowledge is produced. Within Kuhn's linear conception, progress is achieved through a series of successive battles between established and emerging theories. The fittest of those, in terms of their explanatory or their problem-solving abilities, would retain the status of normal/accepted knowledge while the others would be rejected. However, this approach did not explain why OR seemed to continue and prosper alongside its "natural" enemy, soft systems thinking. As has previously been discussed, the role these techniques play in modern Western society, and which determines to a large extent their coexistence, is to contribute to wider processes of normalisation rather than to compete for supremacy. This statement does not seek to undermine the importance of disputes within different disciplines

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[175] I have discussed previously how scientific management did not disappear with the production of the socio-emotional worker, but, rather, how they reinforce each other within contemporary managerial techniques such as TQM.

but, rather, it emphasises that different approaches do not survive merely because of their merits.

Another issue to take into account is that of the different interests that are made concrete in social arrangements such as professional societies, from interests regarding the development of knowledge and the influence of the discipline inside and outside its boundaries, to the achievement of personal and professional ambitions. OR practitioners must have been far from happy with the portrayal of their methods as "mathematical masturbation",[176] or as subordinated to those of the soft systems thinkers.

In this context, and from a completely pragmatic point of view, the first attempts were made to find a method of reaching a compromise between the different approaches. This compromise was expressed in terms of assuming that some methodologies were more suited for solving some types of problems than were others: that is to say, a form of complementarism in terms of accepting each other's speciality should replace the existing battle within the discipline.

The idea of "complementarism" - which is also known as methodological pluralism - was not completely new. As has already been discussed, Checkland (1981) developed a methodology that, although focused on

aspects related to problem definition, considered that "hard" approaches could be successfully used once the nature of the problem had been agreed through open debate amongst the participants. Ackoff (1979a) also suggested that different approaches are not equally useful in all types of situation.

However, it was Jackson and Keys (1984) who attempted to provide practitioners with a systematic classification of the different methodologies. Their *Towards a System of Systems Methodologies* attempted to answer the question of which methodology should be used when facing a particular problem context (p. 139).

Their classification was based on the assumption that organisational problems occur either because the relevant systems are not pursuing the correct goals or because they are not pursuing their goals in the most efficient manner - both from the decision-maker's point of view. This assumption sets the scene in terms of how to help managers/decision-makers identify the correct goals and the most appropriate methodology to apply to achieve them.

Jackson and Keys (1984) define systems as either "simple" or "complex" depending on the number of elements and the number of interactions

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[176] The reader must remember Ackoff's statement quoted in Footnote 142.

between those elements. The decision-making process is then defined as either "unitary" or "pluralist" depending on whether the decision-makers agree on a common set of objectives. The overall classification of problem contexts emerges, then, as the combination of these four parameters. Although the authors acknowledge that there are some ethical considerations that need to be looked at, these are phrased in terms of the type of compromise that would need to be produced when the situation is pluralistic, i.e., whether the final outcome is "genuine" and "democratic", or is imposed by a subset of the decision-makers.

Finally, since "difficulties are almost certain to occur when methodologies suited to particular problem contexts are transferred and adopted for use in problem situations for which they are not designed" (Jackson and Keys, 1984, p. 145), it follows that a correct identification of the methodologies suitable for each of these four problem contexts is necessary. It is important to point out that the practitioner is the one who judges the situation according to the framework provided, and therefore decides which methodology to use.[177]

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[177] It is important to note that in Jackson and Keys (1984) there is no mention to Habermas's social theory or to Foucault's critical analysis. As it was highlighted above, the framework of this initial development is entirely pragmatic, aiming at helping managers to solve organisational problems.

However, even though they attempted to mediate in the dispute between hard and soft approaches by defining different problems for which particular methodologies were said to be suitable, Jackson and Keys concluded that

> The systemic-pluralist problem context embraces the other three types of problem context as special cases. It follows that, in theory, the Ackoff and Checkland methodologies should be able to address problems in all four problem contexts. To use these methodologies in contexts other than the systemic-pluralist would, however, be very inefficient. If they were used in either the mechanical-unitary or systemic-unitary contexts, resources would be wasted in reaffirming an already existing consensus on objectives. If they were used in either the mechanical-unitary or mechanical-pluralist contexts, efforts would be wasted attempting to deal with a complexity that did not exist. Although, therefore, these methodologies are potentially able to address problems in all problem contexts, in practice they are only appropriate for one - the systemic-pluralist context. (Jackson and Keys, 1984, p. 151)

Needless to say, this conclusion could be considered a perfect example of how "neutral" theoretical discussions and "open" debates seem to produce accommodations that are presented as "objective", whilst actually coinciding with the view of one of the parties.[178] Furthermore, this conclusion not only echoes Checkland's (1981) assumption that hard approaches are special cases of SSM, but it also jeopardises any attempt to dissolve the confrontation within the discipline.

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[178] We must remember that Checkland (1981) acknowledges Jackson as one of those who provided valuable input to the development of the methodology.

SSM (and soft systems thinking in general) did suffer serious criticisms.[179] Most of these criticisms were concerned, in one way or another, with soft systems thinking's emphasis on consensus, and its subsequent lack of consideration of power relations in the shaping of organisational and social life.

6.3 Moving away from the soft approaches: the issue of power.

One of the pillars of soft systems thinking is its emphasis on creating a space within which those involved can freely discuss the different aspects of the problems they try to solve. This emphasis not only rests on a particular perception of social reality (subjectivism), but also in the belief that the conditions for open and free debate can be found, or be easily promoted, in modern organisations. Furthermore, soft systems thinking also seems to assume that the decision-makers would somehow look after the interests of those who could be affected.

As was highlighted in the previous chapter, the critics of soft systems thinking are quick to point out that this picture of organisational life and organisational actors is far from realistic. Organisations, they seem to

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[179] See, for instance, Chesterton *et al.* (1975), Rosenhead (1976, 1984), Bryer (1979), Thomas and Lockett (1979), Bevan (1980), Jackson (1982, 1983), Burrell (1983), and Mingers (1984).

suggest, are "boxing rings" in which different actors and groups struggle for power and control. Consensus, if ever found, is more the product of domination or false consciousness than genuine agreement. As a consequence, soft systems thinking is bound to support the *status quo* by helping those in power to legitimise their ideas through an inherently coercive process that is portrayed as fair and open.

From the summary offered above, it seems that most of the critics of soft systems thinking assume that power is a negative, and somehow visible, force equal to domination and coercion. Also, that power seems to be a constant feature of organisational life, being possessed by some actors/groups who exercise it upon others (either explicitly or implicitly). Let us briefly review first, how CST tried to conceptualise power relations, and afterwards, the implications of this negative view of power relations that seems to underlie the need for a critical approach.

The notion of power is never completely defined within a single theoretical framework in the CST's literature. For instance, Jackson focuses on Habermas's concept of distorted communication (Jackson, 1985), and on the role of neurosis as an analogy for self-deception (Jackson, 1991a). Flood (1990) on the other hand, assumes that as a pre-condition for open debate according to his reading of Habermas's "ideal speech situation" it is necessary first to free subjugated knowledges. This is based on his interpretation of Foucault's notion of power. Furthermore, Thomas and

Lockett's (1979), and Rosenhead and Thunhurst's (1982) Marxist critiques of soft systems thinking are widely referred to as useful explanations of how domination and coercion operate in modern capitalist societies.[180]

This negative conception of power in organisations invalidates the possibilities of soft systems to promote organisational democracy, freedom and the social good. It also calls for a counter-notion, which was found in the concept of emancipation. Again, because of the absence of a coherent and explicit notion of power, the concept of emancipation that seems to be promoted as the answer to the identified social ills is also far from clear. Several approximations are made to define the concept of emancipation.[181] From these, I shall select two in particular: the first one because it is the most widely used, and the second because it was boldly written "as an official definition" in Flood and Jackson (1991a):

> Seeking to achieve for all individuals the maximum development of their potential. This is to be achieved by raising the quality of work and life in the organisations and societies in which they participate (Jackson 1991a, p. 185; Jackson 1991b, p. 298; Flood and Jackson, 1991b, p. 324; very similar accounts are given by Schecter, 1991, p. 213)

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[180] These papers are not only mentioned often by critics of soft systems thinking, e.g., Jackson and Keys (1984a), Oliga (1988), Oliga (1990), Jackson (1991a), Keys (1995a), but Thomas and Locket's paper is also included in Flood and Jackson's (1991a) edited book of seminal papers in CST.

[181] See, for instance, Jackson (1985), Oliga (1988), Flood and Ulrich (1990), Flood and Jackson (1991), Jackson (1991a), and Schecter (1991).

> To develop systems thinking and practice beyond its present conservative limitations and, in particular, to formulate new methodologies to tackle problem situations where the operation of power prevents the proper use of the newer soft systems approaches. (Flood and Jackson 1991a, p. 2)

These two definitions provoke comment. In the former, it is not quite clear what Jackson means by "raising the quality of work and life". A plausible interpretation could to be that the "quality of life" would be raised as a consequence of the improvement in the "quality of work". Jackson's definition, therefore, resembles very closely certain of the statements promoted by the management sciences under the production of the "socio-emotional worker".[182]

Regarding the latter definition, it could be argued that, since emancipation is described as the development of new methodologies to tackle problem situations which prevent the use of softer approaches, domination and coercion seem to be portrayed as anomalies independent of the organisational arrangements within which they are perceived. It is therefore plausible to ask, What happened to the criticisms made of SSM, which seemed to underlie the need for the development of a new approach?

It seems clear to me that these authors follow the reasoning of soft systems thinking in terms of developing methodologies that assume that previous

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[182] These statements were discussed in Chapter 4.

ones are special cases. As discussed previously, soft systems methodology was developed for situations in which there was no consensus regarding the nature of the problem, and therefore, its possible solutions. Once consensus was reached, hard systems thinking could be used to tackle organisational problems. Along the same lines, the new methodologies that Flood and Jackson would like to see developed should focus on the conditions that *prevent* free and open debate, hence soft systems thinking can be properly employed. As Jackson (1985) concludes:

> Ultimately if the social arrangements which produce distorted communication can be abolished, there will be no need for any approach other than soft systems thinking in social systems science. (p. 135)

After this brief review we can see that the break with soft systems thinking, that seemed to be necessary according to the criticisms expressed against it, has been far from clearly accomplished.

At this point it is then possible to ask, What could be the implications of assuming power as equal to domination and coercion, and as deeply rooted in modern organisations?

The answer is simple: that radical change of the whole organisational arrangements, and the social structures that support them, is essential. However, this conclusion, consistent with Thomas and Lockett's (1979) and

Rosenhead and Thunhurst's (1982) Marxist analyses, is widely acknowledged as a dead end for the use of systems methodologies:

> Systemic-coercive contexts have been left out of our account, not because it is believed they are rare ... but because it is believed that the drastic problems which exist in such contexts are unlikely to succumb to the remedies of problem-solving methodologies. And it will be remembered that the classification of problem contexts in the earlier section was constructed only with such problem-solving methodologies in mind. (Jackson and Keys 1984, p. 154)

There seem to be two options to resolve this impasse. The first would be to look for the development and use of emancipatory methodologies that would concentrate on challenging organisational structures rather than trying to solve the managerial problems.[183] The second one would be to shift the focus of the analysis of domination and coercion to outside the organisation. Regarding the first option, Jackson (1991a) says,

> Jackson and Keys did not know of any systems methodologies that assumed and acted as though problem contexts might be coercive. From the critical point of view, this was obviously a weakness in the capabilities of systems thinking and made the construction of such approaches imperative. (Jackson 1991a, p. 199)

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[183] Although some authors, such as Schecter (1991a), consider Ulrich's (1983) Critical Systems Heuristics (CSH) as the first emancipatory methodology, Flood and Jackson (1991b) state that CSH is in a very early state of development. (p. 221)

Taking the first option seriously might involve abandoning any attempts to help decision-makers improve the efficiency of their organisations. Jackson (1991a) does not want to follow this avenue of inquiry, and instead he argues that there are some problems that are still liable to resolution using methodologies other than emancipatory ones. As a consequence, the idea of power as domination and coercion, and as "a permanent feature of modern organisations", is set aside, undermining any possible break from soft systems (and thus managerial) thinking:

> [T]he domain of effective application of emancipatory methodologies is organizations as coercive systems or coercive problem contexts. *But not all problem situations are usefully regarded as coercive; some are better seen as unitary or pluralist.* Emancipatory systems thinking, therefore, just like the hard, organizations-as-systems, cybernetic, and soft approaches, possesses a limited domain for which it is the most appropriate approach. (Jackson, 1991a, p. 187, my italics)

The second option - following the conclusion that the Marxist approach was a dead end - was followed by shifting the focus from the inside of organisations to the relationships among different organisations and the relationship among organisations and their environments. This represents a change in focus from domination and coercion within the organisation, to domination and coercion as an external force imposed from the outside upon certain organisations. The concept of emancipation could be then reinterpreted in terms of helping these oppressed organisations fight against their oppressors. Thus, the cause of Community Operational Research - the use of OR techniques to support the agendas of community groups and

voluntary organisations - was taken up by a number of critical systems thinkers. In this line of thinking, it was "discovered" that the various systems methods had an "untapped emancipatory potential" after all:

> In addition to identifying the weaknesses of earlier systems approaches, some of the critical systems thinkers *have found untapped emancipatory potential in them....* In the case of Checkland's work, Jackson maintains that the only possible validation criterion for Soft Systems Methodology is open debate leading to democratic consensus among all those involved in a given situation. Therefore, soft systems practitioners have a strong interest in establishing these conditions, and in opposing social arrangements which make this democratic consensus impossible. From a similar perspective, Spear (1987) and Mingers (1980) *advocate the adaptation of soft methods to emancipatory use, for example within the Community OR movement.* (Schecter, 1991, p. 217, my italics)

The main difference between Community OR (COR) and traditional OR, according to Schecter (1991), and following Jackson (1987), is its choice of clients:

> Emancipatory practice... has centred around the Community Operational Research movement in the United Kingdom (Rosenhead, 1986; Jackson, 1987). *The distinguishing feature of Community OR is its choice of clients.* While traditional OR/systems thinking has almost exclusively served the military, business, and government, *Community OR serves groups such as trade unions, co-operatives, women's groups, tenant unions, and voluntary agencies* (Rosenhead, 1986). Typically, community clients have far fewer available resources than OR's usual clients; they are impatient with technical solutions and suspicious of experts; and *they work by democratic debate and consensus decision making. There is usually no autocratic decision maker who can enforce an analyst's recommendations on the rest of the organization.* (p. 219, my italics)

However, some implicit assumptions in these statements need to be discussed in terms of how these new clients are perceived. Even if these organisations are different in terms of their goals, the way they conduct their daily activities and in the decision-making processes they employ, there seems, in my opinion, to be a very idealistic conception about their nature, and the way members relate to each other. To say that these organisations are *per se* democratic and consensual seems to me to be an overly optimistic statement. This perception of power implicit in COR, that domination and coercion are features that come from outside, stands in contradiction to many reports about community problem situations that have appeared in the literature (e.g., Flood and Jackson 1991b, p.224; Ritchie, Taket, and Bryant, 1994).[184]

I would like to quote Isherwood (1964) who, when referring to minority groups (which have some resemblance to these organisations in terms of their relationship with larger or more powerful bodies), says

> Because the persecuting majority is vile, says the liberal, therefore the persecuted minority must be saintlessly pure. Can't you see what nonsense that is? What's to prevent the bad from being persecuted by the worse? Did all the Christian victims in the arena have to be saints? (p. 59)

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[184] See the case of the "West Newton Council for Voluntary Service", in which different political infighting and coercive situations, similar to those found in business organisations, are identified. The researchers used SSM to tackle these issues. (Flood and Jackson 1991b, p. 224). Ritchie, *et al.* (1994) provides 26 case studies that support my argument.

Another issue that needs to be question relates to the "untapped emancipatory potential" of systems methodologies. This is most problematic indeed; firstly, because it sweeps under the carpet the fact that systems methodologies have been produced in order to satisfy managerial needs and, as a consequence, they have incorporated, are the products of and reinforce, managerial assumptions and practices. In this sense, it seems obvious to me that their application in community organisations would disseminate managerial beliefs and practices within them. Secondly, it would assume that systems methodologies are somehow "neutral", i.e., that their effects depend on who uses them, in what context, and with what intentions. As a consequence, most of the criticisms launched against the methodologies themselves, which seemed to underlie the need for a critical perspective, are again undermined.

In the previous sections, I have highlighted certain problems found when careful consideration is paid to CST's claims of representing a new approach intended to address the criticisms raised against hard and soft systems thinking. Its main achievement so far has been the classification of problem contexts and the acknowledgement of the strengths and weaknesses of different methodologies is tackling different organisational problems. This analysis had already been conducted, although not as systematically, within soft systems.

However, this thesis aims not at dismissing CST on the grounds of its theoretical shortcomings, but to analyse its importance when linked to wider arenas of social interaction and wider processes of normalisation found in modern society. As a consequence, the origins of CST must be explained in relation to certain bodies of knowledge other than systems thinking.

In the next section I shall explore the relationship between Foucault and CST, given the fact that Foucault's ideas were explored to some extent by Flood (1990), and mentioned by Jackson (1991a). Next, I shall discuss the relationship between CST's methodological development, TSI, and the discourses of management sciences in order to end the debate regarding the origins of CST.

6.4 Foucault and critical systems thinking.

The discussion regarding the relationship between Foucault and CST started within Flood's analysis of Foucault's writings published in *Liberating Systems Theory*. Flood's main interest was the provision of a method that could neutralise the role of power relationships in organisations. The need for neutralising power relations comes from Flood's belief that these are actively engaged in the suppression of certain knowledges and points of view. The motto behind this process of neutralisation of power relations is to liberate those suppressed knowledges and points of view to promote organisational diversity. Finally, by increasing organisational diversity

Flood's believes that an increased diversity in systems approaches will follow. On this issue Flood and Jackson (1991a) remark that:

> There are institutional and other forces invisibly at work at a micro-political level which are suppressing many of them. We therefore need to introduce a methodological element that helps to liberate dominated knowledges and methodologies, which in turn helps to grow a diversity of approaches necessary to tackle the great variety of phenomena we face in contemporary society. (Flood and Jackson, 1991a, p. 8)

Even though there are similarities in the terminology used, this negative perception of power in organisations is more akin with the criticisms raised against soft systems, rather than with Foucault's writings. From a Foucauldian perspective, there are several problems with this line of argument. First, there is an over-emphasis on notions of power-as-repression which, according to Foucault, is merely a mask that covers with an egalitarian framework the systems of differentiation. Second, by equating power to repression, Flood and Jackson appear to forget that power is also a productive force necessary in the creation of any body of knowledge. Third, they also forget that power relations are not in fact created and transformed by the will of certain organisational actors who somehow possess or master them. Fourth, they seem to believe that power relations can be assessed separately from the different bodies of knowledge and forms of self-understanding with which they constantly interact. All forms of knowledge, both the dominant and the ones perceived as suppressed, are the products of power relations that are immanent to human interaction. Finally, they suggest the possibility of a social/organisational life free from

power relations - Foucault has described this Utopian society as an abstraction.[185]

In this context, to "liberate" knowledges can only entail altering power relations, and in this process, new and unexpected knowledges and power relations would be created. To assume that this kind of intervention can be engineered would presuppose certain conditions. First, it would be necessary to build an "inventory" of possible forms of knowledge. Second, there would be some kind of parameters to decide which knowledge should be demoted and which ones liberated. Third, maps of how the interaction between individuals in society occur are necessary to decide what changes need to be made. In sum, and without going any further, it is quite evident that this approach presupposes a mechanistic view of social reality alien to Foucault's ideas.

Perhaps a more plausible explanation of Flood and Jackson's approach can be found if we consider for a moment the advantages of assuming power as repression. In general, I believe that the reduction of Foucault's general conception of power to its negative dimension provides a very clear and unproblematic path for action.

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[185] See Page 95.

We have discussed that if power is identified as a possession, certain individuals or groups could be assumed to be power-free and/or in control of it. This means that these individuals can use their power either to restrict the possibility of open debate according to the perception of the systems analyst, or to refrain from using it and thus to allow other members of the organisation to participate freely and express their views. If the former is the case, the situation is perceived as negative and needs to be challenged. If the latter is the case, the analyst can use his/her methodologies to help the whole organisation to improve its efficiency and to smooth social relations.

However, since contemporary organisations seem to be eager to increase their efficiency though the promotion of social harmony, workers' participation, and the development of their workers' potential, it is very unlikely that the analyst would find this negative situation openly present. Therefore, the need radically to challenge organisational structures and practices would be less than common. This is more than a happy coincidence because, as has already been discussed, there seems to be no systems methodology capable of operating in coercive contexts.

In sum, this interpretation of Foucault's work is no more than an "adaptation" of the philosopher's ideas that allows for the systems analyst to intervene in modern organisations. This adaptation removes any objections to the use of soft systems methodologies since in principle, the conditions for free debate are present at the core of the modern managerial discourse. If these

conditions are not actually present, it is simply a matter of showing those in power the advantages of promoting free debate to improve the organisation's effectiveness, and to align organisational actions according to the official managerial discourse. Although Jackson (1991a) seems to be aware that this adaptation of Foucault's ideas is indeed problematic, he nevertheless acknowledges its usefulness:

> Foucault is robbed of most of the essentials of postmodernism in order to make his arguments fit with those of Habermas, and other postmodernist writers are hardly considered at all. So critical systems thinking remains tied to Habermas's project of enlightenment.... Nevertheless, it cannot be doubted that even the adulterated version of Foucault's thinking incorporated by Flood into his critical analysis does strengthen critical systems thinking. (Jackson, 1991a, p. 208)

Having discussed how Foucault's ideas have been incorporated into CST, let us discuss the relationship between CST's methodological development (TSI) and the discourses of management sciences, in order to conclude the debate regarding the origins of CST.

6.5 Beyond the System of Systems Methodologies: Total Systems Intervention.

In the previous sections we have discussed that the need for a critical approach was based on the criticisms raised against hard and soft systems thinking. In order for this critical approach to be put into practice in modern organisations it was necessary to develop a methodology. Curiously enough this new methodology, known as Total Systems Intervention (TSI), was

based on Jackson and Keys's (1984) *Towards a System for Systems Methodologies*. As previously discussed, the System for Systems Methodologies constitutes a pragmatic approach to solve the dispute between the hard and soft systems methodologies, long before CST paid any consideration to Habermas's or Foucault's work. Since CST seems to be equated with TSI, it is suggested that hard and soft systems methodologies constitute special cases with a limited domain of applicability.

> In seeking to establish itself as the new dominant paradigm, therefore, CST demonstrates that earlier approaches are all special cases with limited domains of application. (Flood and Jackson, 1991a. P. 2)

Within TSI, the ideas taken from contemporary philosophers, especially Habermas's theory of human interests, were used as a theoretical justification to underpin CST's commitments to critique, complementarism, and emancipation. Since no major changes were made to Jackson and Keys's classification, one can wonder if the need for using Habermas's theory of human interests was strictly necessary for the development of TSI.[186]

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[186] Some minor changes were made to Jackson and Keys' (1984) System of Systems Methodologies in terms of including two boxes for coercive-contexts. In practice, these new boxes did not constitute a major input since these contexts required a radical change in social and organisational arrangements for which no methodology was available. Even though Ulrich's CSH is included in the "simple-coercive box", it has been pointed out that this methodology was not considered as fully developed. As a consequence, although Flood and Jackson tried to adapt the System of Systems Methodologies to reflect the debates that had taken place regarding the notions of power and emancipation, the final result remains the same.

Personally, I strongly believe that if one takes out the page dedicated to the discussion of Habermas's theory of human interests from Flood and Jackson's (1991b) *Creative Problem Solving*, TSI could easily remain as it is. The same goes for the case studies used to demonstrate TSI's ability to solve organisational problems using hard and soft systems methodologies.

In sum, the need to develop a methodology for CST can easily be seen as a step to establish CST as a new paradigm within the systems movement. Also, to promote its creators' professional careers both academically and in business consultancy, and finally, meaningfully to incorporate systems thinking in current managerial courses such as MBAs. [187]

Having indicated the importance of incorporating CST/TSI within the normal activities of a Management School, I shall now offer a brief summary of the state of managerial knowledge and practice in the 1980s, as exemplified by the emergence of TQM. This will allow discussion of the link between the origins of CST/TSI and the discourses of the management sciences.

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[187] It is important to highlight that CST's research was initially financed with the revenues from the University of Hull's School of Management - business consultancy, undergraduate teaching, and the development of MBA courses. Furthermore, Flood and Jackson were the visible financial and academic heads of this School, being in total control of research budgets.

6.6 Total Systems Intervention and Total Quality Management.

As discussed in Chapter 4, in the early 1980s TQM emerged as an attempt to face the threat that major Far East multinationals posed to the survival of Western organisations. This threat was a direct result of the abolition of government protectionism to internally manufactured goods, and the opening of national boundaries to the free movement of capital, machinery, and goods.

Using the general framework of analysis based on Foucault's ideas - developed in Chapter 3 - TQM was discussed in terms of three interconnected dimensions. The first dimension was understood as a revival of production methods according to the principles of scientific management and the metaphor of the "economic man".[188] The second dimension was conceptualised as a transformation of power relations, i.e., changes in organisational structure, supervision, and production processes. The third dimension involved a transformation of workers' self-understanding through changes in their relationship with their work, their peers, and the organisation and its environment. The last two dimensions were in accordance to the Human Relations' movement and the "socio-emotional

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[188] This metaphor was also linked to the production of OR. See Chapter 5.

worker" metaphor.[189] Training, in the new quality tools for production control and in the new corporate values, was also considered an important element for these changes to take place.

Finally, TQM was understood as a discipline - following Foucault's ideas. This is to say, it was as an increasingly better invigilated process of adjustment - more and more rational and economic - between productive activities, resources of communication and the play of power relationships, according to a particular formula.[190]

In this context, there are striking similarities between the way different and sometimes contradictory managerial techniques were incorporated into the philosophy of TQM and the integration of the different systems methodologies into TSI. As does TQM, TSI uses different methodologies to solve managerial problems. If one links, as I have done in the previous chapters, the hard and soft systems methodologies to certain discourses of the management sciences, CST seems to be no more than an incorporation of the most recent discourses of the management sciences to systems thinking and practice. Furthermore, TSI's phases - creativity, choice, and implementation - resemble quite closely some of the tool-kits for intervention

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[189] This metaphor was also linked to the production of soft systems. See Chapter 5.

[190] See Chapters 3 and 4.

promoted by different quality gurus. However, there seems to be a difference between TQM's objectives and TSI's, since the latter are based on CST's commitments. Let us briefly explore this issue.

TQM claims to be able to help managers to transform their organisations following Japanese working practices, perceived as the main factor in these organisations' success.[191] Its tools and principles constitute an attempt to synthesise these practices according to the managerial discourses of the West. Its complementarism is completely pragmatic, that is to say, TQM proves itself as long as it shows in practice that corporate profits and quality output rise, while industrial unrest is kept to the minimum. Its ability to incorporate different managerial approaches, and to mask their theoretical differences, is another important strength. This resulted in the multitude of recipes and tool-kits used by quality consultants world-wide.[192]

TSI, on the other hand, is portrayed as the way to promote CST's commitments. These commitments are assumed to be rooted in Habermas's

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[191] The reader must remember Ackoff's statement regarding the actual improvement that Western organisations have experienced after applying TQM. See Footnote 48.

[192] The emergence of tool-kits for intervention, and their role in management consultancy, constitutes a topic for further research that could shed light on certain aspects related to the creation of new managerial knowledge, and the transformation of contemporary organisations.

theory of human interests.[193] In this context, the different systems methodologies are said to serve different human interests.[194] They do no explain, though, why these commitments are better satisfied in a working environment. Furthermore, most of the case studies presented in Flood and Jackson (1991b) correspond to business organisations, and the language used corresponds to the language of the management sciences. Even though TSI's complementarism seems to be rooted in neutral universal principles rather than on its practical ability to solve problems, its strength as a problem-solving approach is based on the success of the systems methodologies it employs in solving organisational problems. As previously discussed, I see no other practical difference whether one uses the Systems for Systems Methodologies or TSI in the case studies published, other than the inclusion of Morgan's organisational metaphors - another managerial tool - to help in the selection of the appropriate methodology. Therefore, the need for CST's commitments, and in general, for Habermas's social theory to make a real difference when traditional methodologies are employed, is far from clear. As a consequence, once the need for CST's commitments is undermined, TSI looks like another tool-kit approach similar to those developed by the different quality gurus.

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[193] For a detailed account of how Habermas's theory of human interests was adapted see Flood and Jackson (1991a, 1991b)

[194] "It is clear that "hard" and cybernetic systems approaches can support the technical interest, soft methodologies the practical interest, and critical systems heuristics can aid the emancipatory interest." (Flood and Jackson, 1991b, p. 49)

The relationship between the discourse of TSI and other contemporary managerial techniques such as TQM is quite explicit in Flood and Jackson (1991a, 1991b).[195] In the context of this discussion, it is not surprising, then, that in both books TSI is validated in terms of its relevance to improving the understanding and efficacy of implementing TQM in organisations.[196] In both accounts, TQM is explained in terms of Morgan's (1986) organisational metaphors, then the strengths and weaknesses of these metaphors are highlighted, and according to the logic of TQM some methodologies for intervention are selected. After this "neutral" analysis is conducted, it is concluded that

> With further guidance from the ideals of the System of Systems Methodologies, we chose soft systems methodology, SSM, which assumed that the nature of the social and organisational reality was complex as well as cultural (Flood and Jackson 1991b, p. 57).

Not surprisingly, and probably following the logic of SSM, other methodologies, such as Strategic Assumption and Surface Testing (SAST) and the Viable System Model (VSM) are selected as dependent methodologies. Although Flood and Jackson also acknowledged the importance of taking into account insights from the analysis of organisations

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[195] See also Flood (1993) for a detailed argument regarding how TSI can improve the understanding and implementation of TQM.

as systems of coercion and domination, they remarks do not constitute more than passing comments. This is due to the fact that there are no methodologies to intervene in such contexts.[197] Doing so would also undermine the usefulness of TQM to improve organisations. Thus, the role of TSI, and hence CST, is reduced to supporting the implementation of managerial techniques.

At this point a question arises: What is the real critical effect of CST and TSI in modern organisations? Could it be the case that, if used in different types of organisations, it would go beyond helping with the implementation of contemporary managerial techniques and interests? To explore this issue, let us take a brief look at certain interventions carried out in "community organisations".

Jackson (1991a) devotes a whole chapter to the issue of intervention in Community Organisations (COR). In the section devoted to "COR practice" there are some examples of successful interventions. Amongst those, there is case study that illustrates the development of criteria for evaluating the performance of City Councils using SAST; another is the use of VSM in a

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[196] The reader must remember that Ackoff chose TQM as an example to illustrate how systems thinking can contribute to the successful implementation of TQM. See Footnote 39.

[197] As mentioned before, Ulrich's CSH is suggested for "simple-coercive" contexts, although it is in its early stages of development; there are no methodologies to tackle "complex-coercive" contexts at all.

small entertainment group. Also, they illustrate the use of SSM in a Co-operative Development Agency. Finally, they discuss the use of SSM in a Council for Voluntary Service. As previously discussed, the use of these methodologies is very controversial since CST/TSI is supposed to have emerged from the criticisms raised against these methodologies and their role in supporting the *status quo*, and their inability to acknowledge and tackle coercive situations. Commenting on one of the projects mentioned above, Flood and Jackson (1991a) say,

> In the case of the "West Newton Council for Voluntary Service" although situations of coercion and political infighting are recognised, in the end it was concluded that "the political aspect could be handled informally within the bounds of SSM." (Flood and Jackson, 1991b, p. 230)

In this context, emancipation seems to be mainly concerned with dissolving situations in which domination and coercion are evident. However it is not in the context of challenging organisational arrangements: that is to say, domination and coercion are not assumed to be direct products of these arrangements, but rather as anomalies that must be corrected. Thus, the critical activity that underpins CST seems to be reduced to the smoothing of social relations, and therefore to contributing to social harmony.

As a consequence, we can conclude that there are no real differences in the application of CST between business and community organisations. This does not mean that the tension between business consultancy and social issues - that has been a common denominator since the production of OR

after the war - has been solved. Furthermore, it would be misleading to assume that the eclectic nature of CST suggests that it has not been properly thought through. In the context of the theoretical framework of this thesis, it could be argued that the strength of CST/TSI lies in the fact of its ability to incorporate within a single framework the strengths of the different methodological approaches, and therefore, different managerial discourses.[198]

Such a situation can be explained, to a large extent, by the way in which the concepts of power and emancipation were understood, and by the fact that some possible alternatives such as to challenge current organisational and social arrangements were not considered viable. The name chosen, "Total" Systems Intervention, resembles the nomenclature adopted by contemporary managerial discourses. As has been discussed above, its similarities with techniques such as Total Quality Management (TQM) are not accidental. It would be misleading to assume that this name was merely an attempt to associate itself with successful managerial techniques in order to increase its marketing potential. It was also an attempt to improve the chances of CST/TSI being recognised as a new paradigm within the systems community. The reader must remember that hard and soft systems thinkers had employed a similar strategy.

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[198] The reader must remember that the origins of hard and soft systems were linked to certain managerial discourses. See Chapter 5.

As a final remark, I would like to quote the editorial statement of *Systems Practice*. This journal was established in order to provide a space for the discussion and development of CST:

> *Systems Practice* promotes the development of systems thinking and the use of systems methods to improve decision-making and problem management. The journal focuses on those issues of analysis, design, planning, and implementation that arise in commercial, industrial, governmental, and social enterprises. The primary consideration is to present *practical recommendations*, premised on systems thinking and systems theory, that facilitate the management of complexity- thus benefiting individuals, organisations and society... The journal publishes theoretical articles that contribute to knowledge about systems and indicate potential applications. In keeping with its emphasis on practice, however, the journal gives particular attention to papers that feature innovative methodologies for tackling complex problems and/or describe actual interventions using systems analysis and design procedures.

From this editorial statement, and in the context of the issues discussed in this chapter, it is quite clear that the origins of CST are deeply rooted in managerial interests. These interests, such as the search for shop-floor harmony, efficiency and profit, and the production of docile subjects[199], are now been reinforced by the perceived need to co-ordinate effectively the different, and some times contradictory, discourses found in the modern

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[199] The reader must remember what I understand by "docile subjects" (see Page 115), the difference between "power relations" and "domination/slavery" (see Page 96), the relationship between "power relations" and "freedom" (see page 96), and how power relations affect managers and workers alike (see Page 115).

organisation. The strength of TQM lies on this co-ordination. In the systems sciences, CST has acted likewise. By co-ordinating the different discourses produced in the systems sciences it has attempted at improving their ability to solve managerial problems. CST/TSI has changed the battle for supremacy between the hard and soft approaches for a relationship based on mutual re-enforcement. CST's commitments act as a new official discourse that masks, under the idea of pursuing universal human interests, the micro-techniques of normalisation highlighted and heavily criticised by their critics. Once the link between hard and soft systems and the main discourses of the management sciences has been established, the case for the link between TQM and CST becomes evident. The relationship between the two is, too, of mutual re-enforcement. By using CST/TSI with TQM, CST demonstrates its usefulness by actively contributing to the smooth implementation of the techniques of normalisation that TQM promotes.

This thesis was based on two assumptions - as explained in Chapter 1. The first was that the relationship between CST and the management sciences is not accidental, although neither is it the product of any historical determinism. The second was that the themes which have inspired "changes" in systems thinking - and which produced CST - can be also found in the management sciences, these being the result of managerial interests and practices, not merely spontaneous creativity on the part of the researchers. Such assumptions have been clearly demonstrated. As a

consequence, the critical analysis undertaken in this thesis has fulfilled its promise of demystifying CST's theory and practice.

Chapter 7: Conclusions.

7.1 A Personal Account of the Research Process.

This thesis began with two quotations. The first one, by Michael C. Jackson, is an invitation to explore the ideas of Michel Foucault in order to contribute to the development of CST. I must say, after completing this work, that nothing in Jackson's writings gave me the slightest clue about the sheer complexity of the task I set out to undertake more than three years ago. Thank goodness for that. Otherwise, I wonder if I would have had the courage to abandon an initial PhD research proposal that was previously submitted to explore issues related to business consultancy.

My exploration of Foucault's writings was very painful from the start. Firstly, the common belief that anything that looks somehow post-modern is hopeless or could be equated to the slogan "anything goes" prompted some members of staff to advise me that I should be careful because "very little could be done with Foucault, if anything". My fellow research students also told me, very emphatically, that Foucault was "too risky", if I intended to get a PhD at the end of three years. Secondly, Foucault's ability to contradict himself, to change direction, gracefully to abandon an idea and start playing with a completely different one did not make things easier.

However, after almost two years of reading his books, a picture started to emerge. It was like stepping back from one of Warhol's paintings in order to appreciate the overall effect. The real break-through occurred when, while reading the *History of Sexuality, Vol. 2,* I could finally imagine a framework within which to approach the study of CST: a framework that not only emerged from Foucault's writings but also one that I could explain to others, clearly, avoiding complex philosophical jargon. However, although I had this initial framework in mind, other problems remained unsolved.

Firstly, it has been always clear to me that Foucault's writings were concerned with wider social processes, and in this sense their scope was quite different from that of Systems Thinking and CST's interest in particular organisations. This was very problematic. Then, to make matters more complicated, there was a gap between Foucault and CST.

After many months of thinking, I came to the conclusion that if I could relate systems thinking to the management sciences, some of these problems could be solved. Firstly, if I explored the management sciences, as it is understood in private organisations, I would be referring to a body of knowledge and practices mentioned by Foucault (1982), "the productive subject and the factory floor."

Secondly, I would be able to move away from the debate around whether Foucault or Habermas said this, that or the other, leaving behind the

instrumental use of Foucault's ideas to harmonise factory relations. This would enable me to look at CST from a perspective different from the glossy, well-orchestrated façade presented in the "official accounts" of CST. That is to say, first would come the three commitments, then a discussion of the weaknesses of the previous approaches, followed by an intricate discussion of innumerable quotes from a vast number of thinkers, ending with a presentation of the new discovery, "TSI".

At this point the main building blocks of this research were defined. The first block would be a discussion of Foucault's work. The next block would be a Foucauldian review of some of some themes found in the management sciences and after this, an exploration of the relationship between the management sciences and previous schools of systems thinking. The final block would be an account of some of the conditions that gave origin to CST. At this point, I just had to write the thesis!

After this informal account of my research process, let us take a look at the how the objectives of this thesis were accomplished.

7.2 Concluding Remarks.

Now, we can examine the objectives of this thesis, as expressed in the introduction. In general, I am confident that all the objectives were successfully accomplished as follows:

The objectives of this thesis were as follows:

- "To give a very brief account of the genesis and development of critical theory and critical history. This exploration has a twofold purpose. On the one hand, it will be used as a preamble to the detailed discussion of Foucault's work that will be undertaken. On the other, it will help to introduce those aspects of Foucault's thought that can be better understood when contrasted with Habermas's ideas."

  This first objective was accomplished in Chapter 2, where a general account of the genesis and development of critical theory and critical history was provided. This account served as a preamble to the detailed discussion of Foucault's work that was undertaken in Chapter 3.

- "To explore the work of Michel Foucault. I shall attempt to look both at the most recent of his intellectual productions which have not been studied before within CST, and also to reinterpret previous readings such as those made by Flood (1990) and others. The outcome of this

exploration will be a clear and consistent theoretical framework that will form the basis for following chapters."

This objective was achieved in Chapter 3, where the work of Foucault was discussed at length. This review was very important because CST, and I would say systems thinking in general, has lacked, until now, a clear account of Foucault's ideas. Most published accounts either concentrate on fragmented ideas, slogans and quotes, or are instrumentally produced to back with the "weight" of Foucault a completely alien academic or consultancy project. In this chapter a "three-dimensional characterisation of a historical experience" was introduced, not only to encapsulate Foucault's work, but also as a theoretical framework for the analyses undertaken in the following chapters.

- "To provide a Foucauldian review of some of the ideas that have produced management theory and practice, especially in the UK. This review is very important in order to highlight the some of the issues that have inspired the production of systems thinking in the UK in the past half-century."

This objective was accomplished in Chapter 4, where a Foucauldian review of some of the themes found in the discourses of management sciences was undertaken. The review highlighted some of the issues that

could be relevant when exploring some of the conditions that to produced OR and soft systems thinking (Chapter 5).

- "To explore the genesis and development of OR and soft systems thinking in the UK. This exploration will be essential because CST emerges as a critique of ideas and practices in these areas."

  This objective was achieved in Chapter 5, where an exploration of some of the conditions that have produced OR and soft systems thinking in the UK was carried out. This chapter linked OR and soft systems to the main themes discussed in the previous chapter. The relationship between the management sciences and systems thinking was therefore problematised.

- "Finally, to provide an account of some of the historical conditions that have produced CST. In exploring these conditions CST itself, and the knowledge it has created, will be problematised. Although the origins of CST are portrayed as emerging from the critique of hard and soft systems thinking, I shall argue that CST has been mainly concerned with the redefinition of systems thinking according to the recent managerial discourses, rather than with problematising the very foundations of systems thinking and practice. The incorporation of particular concepts taken from contemporary philosophy allows CST, acting as a new official

discourse, to mask the very same micro-techniques of normalisation that it is supposed to stand against."

This objective has been fulfilled in the last chapter. As previously stated, this account was not intended to be a "definitive" history of the origins of CST. It constitutes an exploration of certain themes and issues that were phrased, understood, and ensembled in a particular way, to serve certain purposes and to re-enforce wider processes of normalisation in society.

Now it is time to ask, amongst other similar questions, the following: What next? What advice could this work give CST for its improvement? From this research, what can we say about the future of CST? The only possible reply to these questions, being consistent with the theoretical framework of this thesis, would be a long silence: i.e., there is no answer!

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